ABSTRACT

The public's view on how poverty and health are related will influence support for different policies and programs. The purpose of this study was to examine public perceptions of the relationship between poverty and health and to identify demographic variables that predict support for the four explanations of the relationship between poverty and health (artifact, drift, behavioural, and structural) first identified in the Black Report in the United Kingdom. A telephone survey of a representative sample of Albertans (N=1,216) was conducted. The majority of respondents believed that poverty leads to poor health. The explanation that health is influenced by the context in which individuals live (structural) received the most support. Demographic variables (sex, age, education, occupation, income, residence, conservatism) explained less than 10% of the variance for each of the four explanations, with conservatism the most consistent predictor.

ABRÉGÉ

L'opinion publique sur les liens qui existent entre la pauvreté et la santé influence le degré de soutien donné aux politiques et programmes gouvernementaux. Le but de cette étude était d'examiner les perceptions du public en ce qui a trait au lien entre la pauvreté et la santé et d'identifier les variables démographiques qui prédisent le soutien aux hypothèses proposées dans le rapport Black qui fut publié au Royaume-Uni. Un sondage téléphonique fut complété auprès d'un échantillon représentatif d'Albertains (N = 1 216). La majorité des répondants croient que la pauvreté conduit à une santé précaire. L'hypothèse selon laquelle la santé est influencée par le contexte dans lequel vivent les gens (hypothèse structurelle) a obtenu le plus grand soutien. Les variables démographiques (genre, âge, éducation, occupation, revenu, résidence et conservatisme) expliquent moins de 10 % de la variance pour chacune des quatre hypothèses. Le conservatisme est la variable prédictive la plus fidèle.

Public Perceptions of the Relationship between Poverty and Health

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In Canada, there is growing inequality in earned income at a time when the social safety net is in danger of being dismantled.¹ The population health and health promotion perspectives have led to a renewed interest in health determinants related to social and economic living and working conditions.¹⁻⁵ The challenge of addressing socioeconomic determinants of health, such as poverty, has been identified as an important health goal.^{1,6-8}

Increasingly, it is recognized that social determinants of health such as poverty are best addressed through public policies.^{1,8-10} Public opinion plays an important role in legislated social policy,¹¹⁻¹⁵ and the public's view on how poverty and health are related will influence their support for different policies and programs.¹⁶ There is no published research that directly addresses public perceptions of the relationship between poverty and health. The purpose of this study was to examine these perceptions and to identify demographic variables that predict support for various explanations of the relationship between poverty and health.

Four mechanisms or "connections" that account for the influence of socioeconomic status (SES) on health have been postulated: *Artifact* or measurement bias; natural or social selection – the *drift* hypothesis;

behavioural/cultural explanation; and *materialist/structural* perspective. These explanations were first identified in the UK Black Report.¹⁷ The *artifact* explanation, often referred to as the *myth* explanation, maintains that the observed relationship between SES and health results from biases in measuring SES and health. It is generally agreed that the artifact explanation is inadequate to explain the observed relationship.¹⁸⁻²⁰ The *natural or social selection* explanation, often referred to as the *drift* hypothesis, suggests that people suffer from ill health first and, due to resultant disability and reduced employment, drift down in social position or become poor. There is some evidence for this explanation of the relationship between poverty and health for some subpopulations, but the impact of ill health on downward mobility is considered to be limited.¹⁸⁻²¹

According to the *behavioural/cultural* explanation, poor people are unhealthy because they engage in health-inhibiting behaviours, such as smoking, substance abuse, inadequate nutritional practices, or decreased exercise. This explanation implies that these behaviours are the result of individual free-choice decisions based on personal values and attitudes toward health. Recent research evidence^{3,5,20} indicates that structural conditions or resources provide a better explanation.

The *materialist/structural* explanation emphasizes that poor health results from decreased access to the material conditions and resources that facilitate health. Those with less purchasing power are more likely to be exposed to the ill effects of inadequate housing, inadequate nutrition, unsafe neighbourhoods, and occupational hazards. Unhealthy behaviours are viewed within the context of living and working

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conditions, and may be coping strategies to manage the stress induced by limited resources.^{3,22-24} Such an approach, which “contextualizes behavioural risk factors” and seeks to address “fundamental causes” of ill health,²⁵ is currently espoused in the health promotion literature.^{1,20,26,27} Over and above its recognition of the effect on health of income *inadequacy* (absolute poverty or material deprivation), a structural explanation also is consistent with the growing body of evidence of the health effects of income *inequality* (relative poverty).^{20,27}

METHOD

This study was part of the annual Alberta Survey administered by the Population Research Laboratory, Department of Sociology, University of Alberta. A random-digit dialing approach was used. Within the household, one eligible person was selected on the basis of gender to ensure an equal selection of male and female respondents. The data were collected through telephone interviews administered between March and May 1996 (See Fong²⁸ for a complete technical report). The final sample consisted of 1,216 individuals, ranging in age from 18-96 years. The overall response rate was 67%. The sample is considered representative of

TABLE I
Percentages of Respondents Agreeing Or Disagreeing with Statements About the Relationship Between Poverty and Health

Explanation	Disagree	Neutral	Agree
Myth			
Poverty leads to poor health	15.6	9.2	75.2
Drift			
People become poor after they get sick and are unable to work	21.9	14.0	64.0
Behavioural			
Poor people are unhealthy because they aren't motivated to look after their health	51.5	13.7	34.9
Poor people are unhealthy because they don't know the effects of harmful behaviours such as smoking	63.9	9.3	26.8
Poor people are unhealthy because they lack the skills to manage their money	54.1	14.0	31.9
Structural			
Poor people are unhealthy because society creates barriers that reduce their opportunity for employment	39.5	16.1	44.3
Poor people are unhealthy because they live under more stressful conditions	30.6	14.7	54.8
Poor people are unhealthy because they get inadequate health care	54.7	10.7	34.6

The number of respondents for each item varies from 1,184-1,201. Respondents were asked how much they agree or disagree with each of the above statements, using a 7-point scale on which 1=strongly disagree and 7=strongly agree. This table combines responses 1, 2, and 3 into “disagree”, 5, 6, and 7 into “agree”, and 4 is “neutral”. Percentages may not total to 100%, due to rounding.

the larger population from which it was selected, based on postcensal data. Survey results for the province-wide sample are accurate within plus or minus 2.9 percentage points, 19 times out of 20.

Respondents were asked to indicate their agreement or disagreement (on a 7-point likert scale, where 1=strongly disagree and 7=strongly agree) with statements about the relationship between poverty and health (Questions are listed in Table I).

The questions were based on the four explanations of poverty presented in the Black Report.¹⁷ Respondents were then asked the following question: “Which of the following do you think provides the best explanation of the relationship between poverty and health? People drift into poverty because of poor health (*drift*); Poor people are unhealthy because of living circumstances (*structural*); Poor people are unhealthy because their behaviour makes

TABLE II
Correlation Matrix for Poverty Explanations and Predictors

	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Explanations															
1. Myth	0.39	0.12	0.10	0.09	0.28	0.30	0.27	0.09	ns	ns	ns	-0.12	ns	ns	-0.08
2. Drift		0.21	0.17	0.12	0.27	0.32	0.22	0.09	0.07	0.09	-0.08	-0.16	ns	0.12	-0.17
3. Behav-motivation			0.45	0.44	0.17	0.14	0.09	ns	-0.09	0.16	-0.16	ns	ns	ns	-0.08
4. Behav-knowledge				0.50	0.22	0.19	0.16	-0.06	ns	0.08	ns	ns	ns	ns	ns
5. Behav-skill					0.24	0.18	0.13	ns	ns	0.18	-0.08	0.07	ns	ns	ns
6. Struct-unemployment						0.51	0.45	0.09	0.09	ns	ns	-0.20	-0.07	0.11	-0.12
7. Struct-stress							0.40	0.13	0.07	0.11	-0.10	-0.12	ns	0.14	-0.21
8. Struct-lack of health care								0.09	ns	-0.06	-0.10	-0.21	ns	0.14	-0.14
Demographics															
9. Sex									0.23	ns	ns	-0.16	ns	0.17	-0.23
10. Health or Social Services Occupation										0.06	0.29	-0.16	ns	ns	ns
11. Age											-0.16	0.06	-0.13	ns	-0.12
12. Education												-0.07	0.16	-0.20	0.30
13. Conservatism													-0.11	-0.07	0.10
14. Residence														ns	ns
15. Poverty															-0.67
16. Income															

All correlations shown are significant at $p < 0.05$ for 2-tailed test.

Sex (male=0; female=1)

Health or Social Services Occupation (yes=1; no=0)

Residence (rural=0; urban=1)

Conservatism (PC or Reform=2; Don't know=1; Liberal or NDP=0)

Poverty (at or below poverty line=1; above poverty line=0)

TABLE III
Regression of Poverty Explanations on Demographic Variables

Demographic Variables	Unstandardized Coefficient	Standardized Coefficient	p
Myth Explanation			
Sex	0.18	0.05	0.18
Age	-0.00	-0.01	0.84
Health or Social Services Occupation	-0.14	-0.03	0.45
Education (years)	-0.01	-0.01	0.83
Household income	-0.01	-0.05	0.18
Residence	0.02	0.01	0.88
Conservatism	-0.23	-0.10	0.01
Adj R ² = 0.01; F = 2.26; df = 7; p < 0.05 n = 833			
Drift Explanation			
Sex	0.06	0.02	0.64
Age	0.01	0.07	0.05
Health or Social Services Occupation	0.37	0.08	0.04
Education (years)	-0.04	-0.07	0.08
Household income	-0.03	-0.12	0.00
Residence	-0.15	-0.04	0.26
Conservatism	-0.32	-0.15	0.00
Adj R ² = 0.06; F=8.19; df = 7; p<0.001 n = 832			
Behavioural Explanation Index			
Sex	-0.77	-0.08	0.03
Age	0.06	0.18	0.00
Health or Social Services Occupation	-0.83	-0.06	0.10
Education (years)	-0.02	-0.01	0.77
Household income	-0.03	-0.05	0.20
Residence	0.16	0.02	0.66
Conservatism	-0.02	-0.00	0.92
Adj R ² = 0.04; F = 5.75; df = 7; p<0.001 n = 820			
Structural Explanation Index			
Sex	0.56	0.06	0.09
Age	-0.01	-0.02	0.49
Health or Social Services Occupation	0.39	0.03	0.41
Education (years)	-0.07	-0.04	0.25
Household income	-0.08	-0.14	0.00
Residence	-1.10	-0.11	0.00
Conservatism	-1.32	-0.23	0.00
Adj R ² = 0.10; F = 13.16; df = 7; p<0.001 n = 814			
Sex (male=0; female=1) Health or Social Services Occupation (yes=1; no=0) Residence (rural=0; urban=1) Conservatism (PC or Reform=2; Don't know=1; Liberal or NDP=0)			

them unhealthy (*behavioural*); There is no real link between poverty and health (*artifactual/myth*)." All questions were tested in a pilot study and were submitted to a University Research Ethics Committee to ensure suitability for administration to the general public.

The following demographic data were collected: age, sex, education, occupation, household income, number of people in household, residence (rural/urban), and voting intentions in the next provincial election. Two new variables were created: *Conservatism* and *Poverty*. A contrast variable, Conservatism, was created from the voting preference variable and coded as follows: Progressive Conservative or Reform (2), Don't know (1), and Liberal or New

Democrat (0). The Poverty variable was created using the two variables "number of people in the household" and "household income"; survey income categories were recoded based on the poverty line for a population of 30,000 to 99,999 (the middle population category of the 1995 Statistics Canada Low Income Cutoffs) and household size. Using the new Poverty variable, 13% of the sample were at or below the poverty line. In Alberta in 1995, 17% of people were living in poverty.²⁹ This survey may exclude some individuals living in poverty who do not have a telephone.

The data were analyzed using the SPSS 7.0 Windows statistical package. First, the percentage distributions of responses to the

likert questions addressing the explanations of poverty were tabulated (Table I). A correlation matrix of the items in Table I was calculated (Table II). Based on the correlations among individual items representing the structural explanation ($r=0.40$ to 0.51) and among the individual items representing the behavioural explanation ($r=0.44$ to 0.50), the relevant individual items were added to create a Structural Explanation Index (reliability alpha of 0.71) and a Behavioural Explanation Index (reliability alpha of 0.73), respectively. Using standard multiple regression, each of the four dependent variables representing the four explanations (myth, drift, behavioural, structural) was then regressed on the 7 predictor variables: sex, age, occupation, education, household income, residence, and conservatism (Table III). The same analyses were repeated with Poverty replacing household income. Missing cases were randomly distributed except that those who were older were more likely not to respond. Responses to the question asking for the best explanation are summarized in Figure 1.

RESULTS

Table I shows the percentage of respondents who indicated that they disagreed, were neutral, or agreed with each of the statements presented. Only a small minority (16%) supported the *myth* explanation that there is no relationship between poverty and health. In contrast, three quarters of Albertans surveyed believed that poverty leads to poor health, with 43% reporting strong agreement (7 on a 7-point scale). A majority of the sample (64%) agreed with the *drift* explanation that people become poor after they become ill, with 22% expressing strong agreement. The three items relating to the *behavioural* explanation were designed to address motivation, knowledge, and skills. Just over one third of respondents agreed that poor people are not motivated to look after their health, about one quarter agreed that poor people lack knowledge about behaviours that are harmful to health, and just under one third agreed that poor people lack skills to manage their money. In short, the behavioural explanation is supported by, at

most, about one third of respondents. With regard to the *structural* explanation, opinion is divided as to whether poor health is related to lack of opportunity for employment, with 44% agreeing and 40% disagreeing, and another 16% being unsure. Just over half of respondents agreed that poor people are unhealthy because they live in more stressful conditions. About one third (35%) believed that the health status of the poor is accounted for by inadequate health care. In summary, only one of the structural explanation statements is supported by a majority of respondents. However, there was somewhat stronger disagreement with the three behavioural explanation statements (19%, 29%, and 21% answered 1 on the 7-point scale) than with the three structural explanation statements (14%, 10%, and 23%).

Figure 1 depicts the respondents' choice of the best explanation of the relationship between poverty and health. This question appeared to be difficult to answer as there were 92 missing cases (8%), with 63 of these volunteering "Don't Know." The most frequently chosen explanation was Structural (41%), followed by Myth (27%), Behavioural (20%), and Drift (5%).

Table III shows the predictors of endorsement for each of the four explanations in isolation. Responses to each of the four explanations were regressed on the demographic variables of sex, age, occupation, education, household income, residence, and conservatism. Regarding the myth explanation, the predictor variables explained virtually none of the variance (1%). Only 6% of the variance was explained for the drift explanation. Those who supported the drift explanation were more likely to be health care or social services workers, older, have lower incomes, and be less conservative in their political voting preferences; the strongest predictor was the degree of conservatism. When poverty rather than income was used as a predictor, similar results were obtained, with education also exerting significant effects; those with less education and those at or below the poverty line were more likely to agree that ill health leads to poverty.

Using the Behavioural Explanation Index, only 4% of the variance was

explained by the predictors, with sex and age the only significant predictors. Males and older respondents were more likely to agree with this explanation. Separate regressions run for each of the three behavioural items gave similar results. The amount of variance explained by the predictors for the Structural Explanation Index was 10%. Income, residence, and conservatism were significant predictors. Those with lower incomes, living in rural areas, and less conservative in their political intentions were more likely to adhere to the structural explanation. Conservatism exerted the strongest effect. When Poverty rather than income was used as a predictor, similar results were obtained. Residence and conservatism remained significant predictors; in addition, females and those with incomes at or below the poverty line were more likely to favour this explanation. Separate regressions run for each of the three structural items revealed similar results.

DISCUSSION

Approximately three quarters of all Albertans acknowledge a relationship between poverty and health although they vary in their perceptions of how it is that poverty influences health. A sizeable majority of respondents believe that poor

health is a precursor to poverty. When comparing support for behavioural and structural explanations, it appears that more Albertans support a structural explanation. When required to choose the "best" explanation, twice as many respondents favoured the structural explanation over the behavioural one. When each explanation was asked separately, the structural explanation item, "Poor people are unhealthy because they live under more stressful conditions," was supported by over half of respondents. In contrast, none of the behavioural explanation questions were supported by the majority of respondents. Furthermore, there was stronger disagreement with the behavioural questions than with the structural questions.

The demographic predictors were able to explain very little of the variance in each of the explanations, which suggests that the explanations are more or less evenly held by a cross-section of the population. Wilson¹⁵ also found that demographics do not exert as powerful an effect on public opinion as previously thought. In our study, degree of conservatism was the most consistent predictor, exerting significant effects in all but the behavioural explanation. In other studies there is evidence that individualistic (behavioural) explanations for poverty are more likely to be supported by those with a conservative political orien-

tation and that those with a more liberal orientation are more likely to support societal causes for poverty.^{13,30} These studies, however, did not explore perceptions of the relationship between poverty and health, but focused on causes of poverty.

Regarding other predictors, income was a significant predictor in both the drift and structural explanations. Those with lower incomes were more likely to support the drift explanation and the structural explanation. Greater support for the structural explanation by those with lower incomes is consistent with several studies^{15,31,32} about the relationship between income and attitudes toward poverty. However, one study³³ found that those with higher incomes are more likely to have a structural view of what determines health.

Only a small amount of variance was explained. Other sources of unexplained variance should be considered. Two potential variables not included in this work are the respondents' knowledge of health determinants and their exposure to poverty. These variables may exert independent effects, over and above the variables included in this study. Perceptions about poverty may be influenced and modified through exposure to the poor, particularly from knowing someone who is poor and hearing about poverty from experts in the area.¹⁵ This type of exposure may also influence respondents' perceptions of health inequalities.

There is incongruence between the responses to the question asking for the best explanation and the questions eliciting agreement with statements representing each of the explanations. For example, very few respondents chose the drift hypothesis as the best explanation, although over two thirds supported this explanation when asked as an individual likert question. These divergent results may be accounted for by variations in respondents' conceptualizations of the relationship between poverty and health and by methodological limitations.

Individuals may simultaneously conceptualize several explanations of the relationship between poverty and health. Bobo,³¹ in a study of attitudes toward the poor, found that individuals may concurrently hold different beliefs to some degree, but differ as to which is most central. It is also

possible that individuals apply explanations differentially; for example, assigning a structural explanation under some conditions and a behavioural explanation in others. Our questionnaire is based on the assumption that people have an undifferentiated concept of poverty (which is self-defined) and a generalized view of health. Wilson¹⁵ found that the public has different causal beliefs for different types of poverty, such as homelessness or receipt of social assistance. The same phenomenon may exist for different health conditions. For example, respondents may support the drift explanation in relation to mental illness if inadequate supports exist in the community for those discharged from mental institutions.

Methodological limitations may also account for the discrepancy observed in responses to the likert questions and to the best explanation question. Differences in the way the questions were worded may have contributed to incongruent responses. For example, in the question asking respondents to indicate their agreement with the drift hypothesis, the phrase "unable to work" adds a somewhat different aspect that is not explicit in the best choice question, which states that people drift into poverty because of poor health. An alternative explanation for the discrepancy may be that after being exposed to questions that address each of the four explanations, respondents when answering the question as to the best explanation may conclude that some explanations are more salient than others.

Implications for further research and policy development

To date, there are no studies that directly address public perceptions of the relationship between poverty and health. Although this study makes a beginning contribution in this area, further studies are needed to ascertain the influence of beliefs about the relationship between poverty and health on the individual's support for existing and potential policies related to health inequalities. This study examined only beliefs about the relationship between poverty and health; additional studies are needed to determine how such beliefs influence support for specific policies. Such studies will

need to address the conceptual and measurement issues identified in the current study. There is a need to explore to what degree, and under what conditions, individuals simultaneously hold more than one explanation. There is also a need to explore whether individuals hold a single, but more complex, view that integrates structural and behavioural explanations, where behavioural factors are seen as intervening variables between structural conditions and health outcomes. Qualitative methods that explore in more depth how the public perceives the relationship between poverty and health may help to refine our understanding of the complexity of this issue.³³ Finally, there is a need to reflect more clearly both the relative and absolute dimensions of poverty.^{20,27}

The literature suggests that the structural explanation holds the greatest potential for ameliorating the negative effects of poverty on health; however, actions based on structural beliefs are difficult to implement and require public support. Examples of policies that reflect a structural approach are those resulting in improved welfare benefits, prevention of further cuts to the social safety net, an increase in the minimum wage, employment and job creation, education and training programs to prevent poverty, progressive taxation aimed at equitable income distribution, and adequate affordable housing. The findings of this study reveal that there is public support in Alberta for a structural explanation, but that there are also considerable numbers of respondents who are undecided or who hold beliefs that may favour policies that reflect behavioural explanations. The public's view of how poverty and health are related will influence their support for different policies at both provincial and national levels.

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