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What factors predict adolescent self-rated health & health care utilization?[1]

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Adolescence is the period during which lifestyle patterns of behaviour, such as tobacco, alcohol and other drug use, nutrition, physical activities, etc., are being formed. These behaviours set the stage for future health problems and health care utilization, as risk-taking and health compromising lifestyles are major causal factors for many health problems.

Furthermore, adolescence is the period of rapid physical and psychosocial changes, a period during which youth become more aware of their bodies and become more introspective. It is also a period of optimal physical health as youth have the lowest rates of disease and death in the western world. During this time, health appraisals are being shaped which may more represent youth's overall sense of psychosocial functioning than their physical functioning. As other researchers have indicated, the tendency to relate general life difficulties to health problems may reflect the underlying patterns of expressing life distress in physical or somatic rather than psychological terms and may explain the consistent patterns of international findings on the relationship between self-rated health and socioeconomic status, family functioning, social supports, etc.

Despite the fact that adolescence seems to be a crucial period for the formation of lifestyles and perceptions of health, virtually no information is available on the determinants of adolescent self-rated health. Yet self-rated health may be one doorway to understanding health care utilization. As other researchers have found, self-rated health is among the best predictors of patient-initiated physician visits.

The purpose of this study was to examine what factors predict self-rated health and health care utilization among adolescents. The study was based on data from the two-time period (1994 and 1996) longitudinal National Population Health Survey (NPHS), which used random sampling to select 19,600 households in the first time period from across Canada. The response rate at Time 2 was 93.6%. This study included 1,493 adolescents who were between 12 and 18 at Time 1 interview. Based on Social Cognitive Theory which suggests that personal and socio-environmental factors interact leading to health compromising or health enhancing behaviours, which in turn, affect psychological health status, which affects personal perceptions of health and health care utilization, we examined demographics (sex, age, grade), structural environment (family structure and income), physical health status (disability and chronic health problems), social factors (social support and social and school/work involvement), lifestyle behaviours (exercise, body mass weight, smoking and drinking), and psychological health status (self-esteem, stress and depression). These variables have all been found to predict various measures of self-reported health and health care utilization.

The results of these analyses found that adolescent perceptions of health are framed not only by their physical health status but also by personal, socio-environmental, behavioural and psychological factors. Not surprisingly, physical health status and change in physical health were the strongest predictors of self-rated health. Yet, adolescent self-rated physical health seems to involve components other than physical health problems. For example, although disability at Time 1 was associated with Time 1 self-rated health, changes in disability status did not affect Time 2 self-rated health. This finding would suggest some stability for self-rated health over time.

The results support previous research that certain personal and socio-environmental factors increase the vulnerability of adolescents by influencing their lifestyles and psychological distress. In addition, these factors influence physical health ratings and health care utilization. Personal factors of age and sex were found to be predictive of self-rated health. Controlling for health status, increases in age became significantly associated with decreases in self-rated health. While this study focussed only on a two-year interval, it does lend support to the idea that some change in perception also occurs as one ages. As found in other studies, females consistently rated their health lower than males. This consistent finding of lower female health self-ratings warrants further investigation to identify whether these findings are due to physical or psychological health problems.

Socio-environmental factors also have direct effects on self-rated health. Consistent with previous research, income is an important predictor of self-rated health, with lower income related to lower health self-ratings. Moreover, changes in income over time were associated with changes in self-rated health. The analyses also indicate the importance of social supports and involvement on perceptions of personal health.

Consistent with Social Cognitive Theory, behavioural lifestyle factors, namely smoking, physical activity and body mass weight were found to influence adolescent self-rated health. As expected, adolescents who smoke and have higher weight rated their health lower. Furthermore, the results suggest that lifestyle factors determine health self-ratings, as changes in smoking and weight status at Time 2 significantly affected Time 2 health self-ratings. However, an unusual finding was that highly active adolescents rated their health more poorly. Whether this finding is due to adolescents who commonly receive injuries because of their activities or who are highly concerned about their health and appearance and are active because of their concern remains to be explored. Similar patterns of predictors of self-rated health were found for physician and nonphysician (nurses, chiropractors, physiotherapists, social workers/counsellors, psychologists, speech, audiology and occupational therapists) utilization.

Although physical health status was a strong determinant of physician and nonphysician utilization, lifestyle, psychological distress and self-rated health also predicted utilization. Among the social factors, only school/work involvement was negatively related to utilization which could mean that school or work-involved adolescents have fewer problems or more commitments which limits time to access services. Dental service utilization, however, showed fewer and different predictors. Contrary to other health care utilization, income was a determinant of dental service utilization. The fewer predictors of dental care overall compared to either physician or nonphysician utilization could reflect the fact that dental problems may be less susceptible to a global sense of well-being.

Overall all sets of factors appear to have implications for both self-rated health and utilization. These findings support the contention that self-assessment of health is an active process involving thoughts and emotions in addition to physical problems. The good news is that income does not prevent access to health care. Clearly those with health problems or disability use the health care system the most. However, income does predict dental care, clearly a point of concern for low income families. Another important finding is that adolescents do access the health care system. Common belief has been that adolescents, especially those engaging in risky lifestyle behaviours such as smoking do not go to physicians and other health care professionals. Yet this study found that females visited physicians on average about four times a year and males about two times a year. Furthermore, adolescents with poor lifestyles are accessing the health care system more. This means that the health care system could be an important access point for targeted and age appropriate counselling on lifestyle issues such as smoking and body weight maintenance.

In summary, this study suggests that although adolescents access the health care system for physical health problems, they also access the system for lifestyle and psychological problems. Addressing personal, socio-environmental and psychological concerns at earlier stages and by different methods may reduce subsequent health care utilization.