



The Relationship between Health Status and Health Behavior

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ABSTRACT

This study was conducted to examine the relationship between health status and four health behaviors: smoking, drinking, physical activity and diet. Data were gathered from 1078 patients in seven family medicine residency clinics throughout Texas. Determinants of health status and health behaviors were reported on a questionnaire. Results: Healthier diets were observed in patients with greater numbers of health conditions. Previous and current smokers reported a greater number of health conditions than their non-smoking counterparts. Patients who were rarely physically active reported poorer health more frequently than active patients. Several unhealthy behaviors, including increased fried/fast food intake and unsafe/binge drinking were associated with a decreased age. There was no association between age and physical activity. Implications: Because younger patients engaged in unhealthy eating and drinking behaviors, they could potentially benefit from awareness programs or physician intervention aimed at improving their health behavior choices, given that the pathogenesis of many important disease processes begin early in life. Additionally, the healthier diets seen in patients with increased numbers of health conditions may be a reflection of physician or personal intervention to improve health in sicker patients.

BACKGROUND

It has long been known that unhealthy behaviors including tobacco use, alcohol consumption, physical inactivity and poor diet are risk factors for disease. In turn, certain diseases and poor health status have been shown to prevent patients from maintaining healthy behavior practices such as exercise (2). Other studies have demonstrated a link between older age and fewer unhealthy behaviors (1). This study aims to examine the relationship between general health status, number of health conditions, and age in relation to four health behaviors: smoking, alcohol consumption, physical activity and diet.

MATERIALS and METHODS

This cross-sectional survey of patients' health behaviors was conducted in seven family medicine residency program clinics across the state of Texas. At each site, medical students surveyed 150 consecutive adult patients who presented for routine outpatient care, for a total of 1078 respondents. Surveys addressed four health behaviors (tobacco and alcohol use, physical activity and diet), stage of behavioral change, health status including BMI and presence/absence of 16 chronic conditions, and demographic characteristics.

RESULTS

Seventy-five percent of respondents were female and the mean age was 46.2 years. Respondents were 49% Hispanic, 28% White, and 19% African American, 4% other.

General Health Status vs. Health Behaviors: Patients who were current or previous smokers were more likely to report poor health status compared to those who had never smoked (Figure 1). Patients who rarely did any physical activity were more likely to report poor health status (12.9 %) than those who were categorized as active (5.5 %). General health status was correlated with the number of health conditions patients reported: patients with excellent health had an average 1.27 health conditions, while patients with poor health reported an average of 4.78 out of 16 possible conditions (Figure 2).

Reported Health Conditions vs. Health Behaviors: Patients who had never smoked reported an average of 2.35 health conditions, while previous smokers and current smokers reported an average of 3.54 and 3.13, respectively (Figure 3). Patients who ate more fast/fried food reported fewer health conditions (Figure 4). There was no correlation between fruits/vegetable intake and number of health conditions. Non-drinkers reported a mean of 2.89 health conditions, while safe drinkers and unsafe/binge drinkers reported an average of 2.49 and 2.31, respectively. Physical activity was not significantly correlated with the number of conditions patients reported.

Age vs. Health Behaviors: Our data indicated that age was correlated with poorer general health status (Figure 5). Previous smokers were significantly older (avg. 49.80 yrs) than current smokers (avg. 41.18 yrs.) and patients who have never smoked (avg. 40.77 yrs.) (Figure 6). Unsafe/Binge drinkers were younger on average than safe or non-drinkers (Figure 7). Patients reporting greater amounts of fruit and vegetable intake were older (Figure 8), while patients who ate more fast food were of younger average age (Figure 9). Age was not significantly correlated with physical activity.

Smoking Status	Excellent Health	Poor Health	Total Patients
Non-smoker	7.9% (49)	7.9% (51)	649
Previous Smoker	3.0% (5)	10.7% (18)	168
Current Smoker	3.0% (6)	15.8% (32)	203
Total	60	101	1020

P=0.00

Figure 1

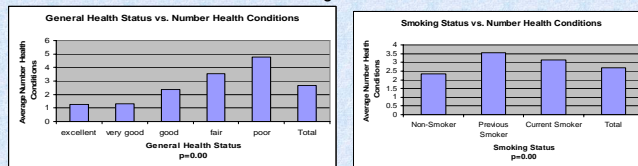


Figure 2

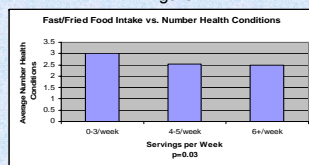


Figure 4

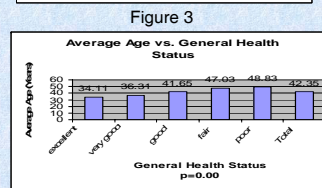


Figure 5

RESULTS (cont.)

Smoking Status	Average Age
Non-smoker	40.77 yrs.
Previous Smoker	49.80 yrs.
Current Smoker	41.18 yrs.

Figure 6
P=0.00

Drinking Status	Average Age
Non-drinker	43.47 yrs.
Safe drinker	45.85 yrs.
Unsafe/binge drinker	35.82 yrs.

Figure 7
P=0.00

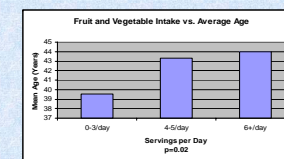


Figure 8

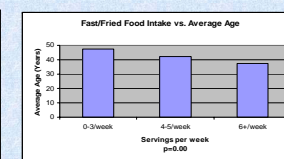


Figure 9

CONCLUSIONS

- Increased fast/fried food intake, unsafe/binge drinking, and not smoking were associated with fewer health conditions.
- Rare physical activity was associated with poorer general health status.
- Poorer general health was associated with increased age. Older age was associated with healthier habits, including increased fruit/vegetable intake, decreased fast/fried food intake, and safer drinking habits. Previous smokers were on average older than those who currently smoke, or who had never smoked.
- The trends toward decreased fast/fried food intake and safer drinking habits seen in patients with more health conditions may be a reflection of physician or personal intervention to improve health in sicker patients.
- Young patients, who are more likely to drink at unsafe levels, smoke cigarettes, and eat unhealthy foods, could potentially benefit from awareness programs or physician intervention aimed at improving their health behavior choices, given that the pathogenesis of many important disease processes begin early in life.

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