



Exploring the Link Between Personality and Preventive Health Behaviours in a Community Sample

Summary Report

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Research on why some people stay healthy while others get ill has often turned to examining how personality may play a role. In general, there tends to be two main reasons why certain people are more or less prone to staying healthy. First, certain personality or behavioural styles may make people more vulnerable to experiencing higher levels of stress. This higher stress in turn is known to have harmful effects on health by compromising the healthy functioning of the immune system and the cardiovascular system. The effect in the short term may be increased vulnerability to viral and bacterial infections, and vulnerability for more threatening conditions such as cancer and heart disease in the long term.

Second, people with certain personality styles are more or less likely to practice preventive health behaviours, that is those behaviours that focus on promoting health and preventing possible illness and accidents. The practice of behaviours such as eating healthy foods, exercising regularly, managing stress, and having regular dental and medical check-ups is well known to enhance health and well-being. However, failure to engage in these “wellness” behaviours can increase vulnerability for illness, both acute or passing health problems, as well as chronic or long term health issues. In addition, people may tend to let such behaviours “slip” when they are under stress which in turn can increase the harmful effects of stress on health.

One of the reasons for conducting this research was to examine how a certain behavioural style, procrastination, may be linked to stress, health behaviours, and illness. It should be noted that while many people are known to procrastinate once in awhile, the focus of this research was to examine people who habitually or chronically procrastinate. Constantly “putting off” or delaying necessary and important tasks may in and of itself create unnecessary stress. And when the task being put off is health-related, such as delaying seeking medical care or taking care of one’s health by practicing health protective behaviours, the result may be harmful for one’s health.

Previous studies examining this issue have indicated that people who chronically procrastinate tend to not practice health protective behaviours, delay seeking care for their health problems, have higher stress levels, and report a greater number of acute health problems. However, because these studies examined student procrastinators, it was unclear as to whether the same relationships would be found in a more diverse group of adults. Students tend to be younger and healthier, but may also experience greater stress when trying to meet academic deadlines. Outside of academic life deadlines exist, but the immediate pressure to meet these deadlines in a timely manner may not be as heightened as for students trying to meet the demands of college or university life. Our main purpose for this study was to see if the negative health effects of procrastination found in the previous studies with students were also present for other adults in the community. In other words, we wanted to try to answer the question of whether procrastination is bad for the health of not just students, but for other adults as well.

An additional focus of this study was to explore if chronic procrastination was related to other health-related behaviours, and household safety behaviours in particular. Household safety behaviours include things like making sure the stairs and walkways at home are clutter-free, disposing of expired medicines and maintaining the smoke alarm.

In general, the practice of such behaviours helps minimize the incidence of unintentional injuries or accidents in the home, and helps keep a safe environment for everyone living in the household. Not practicing these safety behaviours can have potentially harmful consequences. For instance, recent estimates indicate that 13.3% of Canadians age 12 or over sustain personal injuries in the home (Statistics Canada, 2002). In fact, unintentional injuries are known to be the leading cause of death for Canadians between the ages of 1 to 44 and the fourth leading cause of death for Canadians of all ages. In the United States, there are almost 20,000 deaths due to unintentional injuries at home per year, which averages to about 21 million medical visits resulting from home injuries (Home Safety Council, 2004). What is worse is that 9 out of 10 injuries can be prevented. Because home safety issues can affect all household members (young children and older adults in particular), not practicing these behaviours to keep the home safe puts not only the health of the procrastinator at risk, but the health and safety of his or her entire family. We wanted to examine the extent to which people engaged in household safety behaviours, and how chronic procrastination as a behavioural style might be involved.

The Sample

A total of 261 people completed the survey either on-line or by mail (37). The majority of participants were female (71%), and from Canada (59%) and the United States (36%), with the remaining participants from Australia (2%) and Europe (2%). The participants ranged in age from 16 to 74 years old, with an average age of 33.8 years. The majority of the participants self-identified as Caucasian (74%), and the remainder were Asian (18%), African American (3%), Hispanic (3%), Aboriginal (3%), and other ethnicities (1.6%). Nearly half of the participants were employed full time, 21% employed part time, one quarter were unemployed, 6% were retired, and 2% were on disability. Just over half of the participants were married or living with an intimate other, 40% had never been married, and the remaining 10% were divorced, separated, or widowed.

Self-Reported Health

Participants in our survey reported suffering from a range of acute and chronic health problems. The average number of reported acute health problems was 3.2 and the average number of chronic health problems was 2.0. Some of the most frequently mentioned health problems included:

Acute

- Headache (56% of the sample)
- Flu/cold/fever (39%)
- Allergies (37%)
- Back problems (36%)
- Insomnia (29%)

Chronic

- Chronic migraines or headaches (44.1%)
- Asthma (20.3%)
- Heart Disease and/or high blood pressure (18.4%)
- Arthritis/Fibromyalgia/Lupus (15%)

Stress

Experiencing high amounts of stress can be harmful for both health and well-being. For this study, participants were asked to rate the degree of stress they had been experiencing in the past 2 weeks and in the past 6 months. Approximately 14% of participants reported that their lives had not been stressful at all in the past 2 weeks. However, a little more than half (56%) of the participants reported that their lives had been moderately stressful and 31% indicated that their lives had been extremely stressful during the past 2 weeks. In the past 6 months, over a third of the participants (37%) indicated that their lives had been extremely stressful and 56% reported that their lives had been moderately stressful. Only a small portion of participants (8%) reported that their lives had not been stressful at all.

Wellness Behaviours

Wellness behaviours are behaviours that people perform in order to maintain a healthy lifestyle. For example, wellness behaviours can include eating breakfast or taking time to relax. For wellness behaviours, the frequency of performing these behaviours was measured using the Wellness Behaviours Inventory (WBI; Sirois & Pychyl, 2002) a measured used previously with student samples to test the links between procrastination and health. From this inventory, we were able to calculate an overall wellness behaviour score using 10 items from this measure. Because taking vitamins and natural supplements are not a regular practice for most people, these two items were excluded from the overall wellness behaviour score. In general, a higher score reflected that an individual frequently performs a variety of important wellness behaviours. A brief summary of the results for wellness behaviours is described in the table below.

Table 1. *Frequency of Wellness Behaviours Practiced.*

Wellness Behaviour	Percentage of participants reported
Eating Breakfast	- more than 80% of participants reported at least 2-3 times a week - 11.1% of participants reported eating breakfast less than once a week or never
Getting a good night's sleep	- 11.9% of participants reported that they rarely get a good night's sleep - 19.6% reported always getting a good night's sleep
Drinking 2 or more caffeinated drinks	- 23% of participants reported less than once a week or never - Over 50% of participants reported at least 4-5 times a week
Exercising for 20 or more continuous minutes	- 32% of participants reported less than once a week or never - 19.9% reported only once a week - 47.9% reported at least 2-3 times a week

Wellness Behaviour	Percentage of participants reported
Eating 3 meals a day	- 64% reported at least 4-5 times a week - 13.8% reported less than once a week or never
Taking time to relax	- 7% reported that they rarely took time to relax - 38.2% reported at least once a week - 32% reported taking time to relax every day
Eating fresh fruits and vegetables	- 35.4% reported every day - 52% reported at least 2-3 times a week - 3.8% reported rarely eating fresh fruits and vegetables
Walking as much as possible	- 33.3% reported every day - 53.3% reported to walking at least once a week - 13.4% reported less than once a week or never
Eating junk food	- 18.8% reported less than once a week or never - Over 40% reported 2-3 times per week - 8.8% reported eating junk food every day
Eating a well-balanced meal	- 55.2% reported at least 4-5 times per week - 32% reported 2-3 times per week - 12.8% reported once per week or less
Taking vitamins	- 42% reported less than once a week or never - 39.4 reported at least 4-5 times per week
Taking natural supplements	- 71.3% reported less than once a week or never - 16.4% reported at least 4-5 times per week

Health-care Behaviours

Preventive health-care behaviours were measured by using two questions that asked participants if 1) they see the dentist for regular check-ups, and 2) they see the doctor every year for an annual physical. About a third of the participants reported that they delayed visiting the dentist for a regular check-up, while 53 % of participants reported having regular check-ups. A little over a half (51 %) of participants indicated that they visit the doctor annually, whereas a third did not see their doctor annually for a physical.

Chronic Procrastination

For this study we used three measures of procrastination – two to assess chronic procrastination across a variety of life tasks, and one to assess the tendency to delay making decisions. Because each of these measures examines a general tendency to procrastinate as opposed to specific incidences of procrastination, the scores from these scales provide a personality or trait-like assessment of procrastination. Lay's General Procrastination scale (GPS; Lay, 1986) was used to measure tendencies toward procrastinating on a variety of daily tasks, many of which could be associated with the

thrill of waiting until the last moment to perform them. All items from this scale were combined into a single rating score and higher scores indicated a greater tendency to procrastinate across a variety of tasks. The revised Adult Inventory of Procrastination (AIP-R; McCown & Johnson, 2001) was used to measure chronic task delay that is motivated by avoiding the unpleasantness of a task. All items from this scale were combined into a single rating score, where higher scores represented a greater tendency towards task avoidance. Lastly, the Melbourne Decision Making Questionnaire (MDMQ-P; Mann, Burnett, Radford, & Ford, 1997) was used to measure the tendency toward delaying decision-making. Similar to the other two measures, all items were combined into a single score and higher scores indicated a greater tendency to delay decision-making.

Is procrastination bad for your health?

Overall, our results were generally consistent with the research conducted with student samples. Chronic procrastination was associated with experiencing higher levels of stress, reporting a greater number of acute health problems, and practising fewer wellness behaviours. Decisional procrastination was the only measure that was unrelated to health problems. Using an advanced statistical technique we also found that the poorer health of procrastinators was explained by their higher levels of stress, and to a lesser extent their poor health behaviours. In the earlier studies with students, only higher stress was responsible for the poor health reported by procrastinators. However, in this study practicing fewer wellness behaviours was also linked to more health problems, suggesting that the relative youth of the student samples was perhaps more protective against the potentially harmful effects of not practicing wellness behaviours. It appears that as people get older, they may be less resistant to the effects of not practicing these health preventive behaviours.

Household Safety Behaviours and Procrastination

Household safety behaviours include storing dangerous tools in a safe place or having a working carbon monoxide detector. Previous studies examining the links between procrastination and health have not examined whether procrastinators are less likely to perform these types of behaviours which can keep the household safe for both themselves and their families. These behaviours were measured using questions that were specifically designed for this study. These questions were rated on a 5-point scale, with response options ranging from 1 for “false for me”, to 5 for “true of me”. In the case that participant may not have been responsible or capable of attending to these safety tasks they were instructed to answer according to any actions that were taken to ensure that the person who was responsible was aware of what needed to be done. A brief summary of the results are presented on the following page. As procrastination scores increased, the tendency to practice household safety behaviours decreased, suggesting that chronic procrastinators may risk not only their own health and safety, but also that of their families by not taking care of these household safety tasks.

In addition to these household safety behaviours, about two thirds of participants indicated that they had a first aid kit at home. However, less than half of the sample had a working fire extinguisher (47%) or a carbon monoxide detector (47%). A little over half of

the participants reported that they did not have a carbon monoxide detector in their homes, and 93% of participants reported having a flashlight or candles handy in case of blackout. Those who were and were not prepared for emergencies by having a first aid kit, fire extinguisher, or carbon monoxide detector did not differ their procrastination scores. However, the few people who were not prepared for a blackout were chronic procrastinators.

Table 2. *Household Safety Behaviours Practiced.*

Behaviour	Percentage reported
Fixing broken things around the house right away	- 9.6% reported that this was not true for me - 32.2% reported that this sometimes true and sometimes false for me - 58.3% reported that this was true for me
Monitoring the condition of electrical appliances to avoid accidents	- 19.1% reported that this was not true for me - 23.8% reported that this sometimes true and sometimes false for me - 57.1% reported that this was true for me
Disposing of old medicines	- 23% reported that this was not true for me - 20,3% reported that this sometimes true and sometimes false for me - 56.7% reported that this was true for me
Making sure that walkways are clutter-free	- 27.3% reported that this was not true for me - 20.4% reported that this sometimes true and sometimes false for me - 69.6% reported that this was true for me
Maintaining the smoke alarm	- 33.1% reported that this was not true for me - 15.8% reported that this sometimes true and sometimes false for me - 52.3% reported that this was true for me
Making sure household items are stored away properly	- 8% reported that this was not true for me - 18.4% reported that this sometimes true and sometimes false for me - 73.5% reported that this was true for me
Making sure hazardous tools are put away after they are used	- 5.9% reported that this was not true for me - 17.1% reported that this sometimes true and sometimes false for me - 77% reported that this was true for me
Making sure that flammable materials are stored in a safe place	- 4.2% reported that this was not true for me - 6.9% reported that this sometimes true and sometimes false for me - 88.8% reported that this was true for me

Household accidents

Household accidents occur frequently and can have potentially harmful consequences. In our study, 29% of participants reported that there had been an accident in their household that they could have prevented. Of those who reported having accidents, 63% indicated that someone had been injured as a result of the accident and about 26% of participants reported that personal possessions had been damaged during the accident. Interestingly, participants who had experienced a previous household accident also had higher procrastination scores.

Participants were also asked to rate how important it was to them to keep their household prepared for dealing with potential accidents. A rating of 1 indicated “not at all important” and a rating of 10 indicated “extremely important”. The average rating of importance for keeping the household prepared was 7.9. Using the same 10-point rating scale, participants were asked to rate how important it was to them to keep their household safe and free from accidents. The average rating was 8.42.

Intentions to improve household safety

We also asked participants about things that could be done to improve household safety, and about 38% of participants indicated that there were still some things that could be done in their home to ensure the safety of those who live there. These particular participants were then asked to list three examples of things that could be done to improve their household safety. Some of the examples our participants suggested were that they could replace carpeting, fix the roof, secure loose wires so that no one trips over them, get better lights for outside the house, resurface the driveway, and add a side-door step.

These examples were then ranked in order of importance. After these participants ranked their examples, they were asked to rate their intentions of performing these behaviours. For the most important household safety behaviour that needed to be completed, 10% of participants reported that they did not intend to complete the behaviour in the near future, 22% of participants reported that they may complete the behaviour in the near future, while two thirds of participants reported that they intended to complete the behaviour in the near future.

For the second most important household safety behaviour, 17% of participants reported that they did not intend to complete this behaviour in the near future, whereas almost half of the participants reported that they intended to complete this behaviour. Finally, for the least important household safety behaviour, almost half of participants reported that they did intend to complete this behaviour in the near future, 23% of participants reported that they did not intend to complete this behaviour and 27% reported that they may or may not complete this behaviour in the near future.

Conclusion

Overall, the results from this study with adults in the community echo those from previous studies of college and University students. Chronic procrastinators report having a greater number of acute health problems, experience higher levels of stress, and engage in fewer health protective behaviours. The findings also indicate that the higher levels of stress may be indirectly responsible for the poorer health of procrastinators and that now engaging in wellness behaviours and preventive health-care

behaviours such as regular dental and medical check-ups may additionally place procrastinators at risk for poor health. Finally, chronic procrastinators practice fewer behaviours that would keep their household safe, and may therefore increase the risk that household accidents occur.

Clearly the answer to the question of whether procrastination is bad for your health is “yes”, and our findings indicate that there are multiple reasons for this. The task now is to better understand why chronic procrastinators have such difficulty looking after their health and safety, especially given the potential consequences of not doing so. This line of research hopes to provide an answer to this important question which may lead to some insight into how to help people with this behavioural style improve their health and well-being.

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