Stress and Illness

Direct and indirect effects on health

- If a person has a pre-existing vulnerability (physical or psychological), then stress may interact with it to cause illness
- People who were under more stress
  - Reported less sleep
  - Were less likely to eat breakfast
  - Reported using more alcohol
  - Reported using more recreational drugs

The Stress-Illness Relationship: Figure 7.1
Coping with Stress: Review of appraisal

- Impact of stress depends on how the person appraises it
- Primary appraisal: How significant is this event?
- Secondary appraisal: Do I have the resources to cope with it?

The appraisal view of stress was developed by Lazarus

Coping with Stress: What is coping?

- Process of managing the discrepancy between the appraised demands of the situation and the perceived available resources
- Coping is dynamic
- Can alter the problem OR regulate the emotional response
- Coping efforts are

Coping with Stress: Personality and Coping

Personality: enduring tendencies of perceiving and responding to events; traits;
Personality → coping w/stress → health/illness

Optimism: people high in optimism report fewer symptoms & may recover more quickly
Pessimism: tendency to view things negatively is associated with more symptom reporting, poorer health; also termed negative affectivity

Procrastination and Health

Procrastination
- self-regulation difficulties in the form of delaying the start and/or completion of necessary and important tasks (Ferrari & Tice, 2020).
- Linked to poor mental health
  - anxiety and depression
- More recently linked to poor physical health
  - Higher stress, more health problems (Sirois et al., 2005)
  - Poor health behaviors (Sirois, 2004a, 2004b, Sirois et al., 2005)
Personality and health models

Procrastination affects health through:
- Direct route: stress → immune system
- Indirect route: health behaviors
- Health behaviors may work in conjunction with or independent of stress to predict illness (Sergerstrom, 2000).

Original Procrastination-health model

![Diagram](image1)


Procrastination-health model

![Diagram](image2)

Research limitations

- All studies involved student samples
  - Students are younger and healthier
  - Procrastination of academic tasks vs. real world tasks and goals
- Relation to other health behaviours?
  - Medical check-ups
  - Household safety behaviours
Purpose

- Replicate and extend previous research on the procrastination-health model
  - Community-dwelling adult sample
  - Include avoidant procrastination
  - Other health behaviours, e.g. household safety
- SEM approach
  - Retest original proposed model
  - Effect of multiple health behaviours on health

Method

Adult sample $N = 254$
- 70.0% female; $M$ age = 33.8 years ($SD = 12.4$), range 16 to 76 years
- recruited from the community ($n = 37$) and the Internet ($n = 217$).

Residents of:
- Canada (59.3%), United States (36.8%)
- Europe (1.5%), Australia (1.5%)

Ethnicity:
- Caucasian (73.7%), Asian (17.5%), African American (2.8%), Hispanic (2.8%), Aboriginal (1.6%), other (1.6%).

Results

Table 1. Intercorrelations among the procrastination, stress, and health-related variables.

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<thead>
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<th>Measure</th>
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<td>2. Adult Inventory of Procrastination Revised</td>
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<td>3. Acute health problems sum</td>
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<td>4. Stress in past 2 weeks</td>
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<td>5. Wellness Behaviours Inventory</td>
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<td>6. Stress in past 6 months</td>
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<td>7. Medical check-ups</td>
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<td>8. Dental check-ups</td>
<td>.22**</td>
<td>.15**</td>
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<td>.13*</td>
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<td>.21**</td>
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<td>9. Household safety behaviours</td>
<td>.23**</td>
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Note: *$p < .05$, **$p < .01$. 

Procrastination-health model

Figure 3. Proposed structural model of the procrastination-health relationship.
Structural model

Figure 3. Revised structural model of the procrastination-health relationship showing significant paths and standardized regression coefficients.

Conclusions

• In adults, procrastination may be bad for health
• Direct route (stress) links procrastination to health
• Future research should examine relation of procrastination and health over time

Coping with Stress: Personality and Coping

Negativity, Stress and Illness
• Negative Affectivity: a pervasive negative mood marked by anxiety, depression, and hostility
  – Related to poor health
  – Can affect adjustment to treatment
  – Can affect self-reports of health

Disease-Prone Personality?

Friedman & Booth-Kewley (1987): looked at 101 studies and the relationship of personality traits to 5 different diseases
• anxiety, depression, anger/hostility, extraversion all showed small but reliable assoc. with the 5 diseases
Anxiety & Depression → higher risk for 5 diseases
Problems:
Negative Emotions & Health

• Mayne (1999) suggests that some negative emotions can have positive effects on health
  Short bursts of emotion-associated SNS activation → immune system stimulation
  Anxiety & Guilt → preventative health behaviors & care-seeking
  Distress & Depression → increased symptom sensitivity, accuracy of illness perception, & may facilitate care seeking
  Chronic Activation → wear & tear of cardiovascular
  Intense chronic neg. emotions → risky behaviors

Learned Optimism

Explanatory style (Seligman)
• an individual’s characteristic explanatory style regarding good and bad events
  Three qualities of explanatory style that determine optimism or pessimism are:
  1) Permanence - stable vs. unstable
  2) Pervasiveness - global vs. specific
  3) Personalization - internal vs. external
  Pessimism (Seligman) : The belief that bad events are stable, are one’s own fault, and are NOT confined to present circumstances

Optimism as an Expectancy

Dispositional Optimism (Carver & Scheier)
• the global expectancy that good outcomes will generally tend to occur across important life domains
  Scheier & Carver suggest that positive expectancies cause a person to continue to work towards attaining their goals
  • Optimists report higher QoL than pessimists
  • Optimism predicts lower distress following surgery
  • Optimists have an “optimistic advantage” as compared to pessimists

Life Orientation Test
(Scheier & Carver)
1. In uncertain times, I usually expect the best.
2. If something can go wrong for me it will.
3. I always look on the bright side.
4. I’m always optimistic about my future.
5. I hardly ever expect things to go my way.
6. Things never work out the way I want them to.
7. I’m a believer in the idea that “every cloud has a silver lining.”
8. I rarely count on good things happening to me.
9. Overall, I expect more good things to happen to me than bad.
Optimism and Health
Scheier & Carver suggest that optimists develop fewer physical symptoms over time
**Limitations:** self-report of symptoms
But is Optimism always healthy?

4 ways that optimism may influence health:
1) by improving immune system functioning
2) through use of adaptive coping strategies
3) through increased positive health habits
4) through absence of negative mood

Optimism and Well-being

Optimists’ coping styles:
- High Self Esteem
- Conscientiousness
- Health-prone personality
  - Sense of control, self-esteem, optimism, resilience
- Resilience – internal and external sources
  - Optimism
  - Flexibility
  - Determination
  - Sustainability
  - Diversity
  - Balance

Coping with Stress:
Personality and Coping
Psychological Control
- Perceived control

- Self-efficacy

- Often viewed as a coping resource
Coping Styles

- Dispositional vs. Situational coping
  - Recent research questions whether general coping styles measured at trait level predict how people behave in specific situations
  - Flexible copers cope especially well with stress
- Approach vs. avoidance
- Emotion-focused vs. problem focused
  - Can use both together or separately

Stress & Coping

- **Problem-focused coping**: rational approach that attempts to change the situation by changing either something in the environment or how the person interacts with the environment

- **Emotion-focused coping**: efforts to control the emotional distress associated with the situation

Coping with Stress: Problem-Focused vs. Emotion-Focused

- Disclosure
  - Beneficial long term effects on immune functioning follow emotional disclosure
- Interventions employ written exercises to encourage emotional expression
- Interventions improved health among
  - AIDS patients
  - Breast cancer patients
  - Asthma patients
  - Rheumatoid arthritis patients
Coping and External Resources: Overview

- Personality Traits and Coping Styles are Internal Resources
- External Resources would include:

Coping Resources: Social Support

Social Support: the type of assistance that people receive from their interactions with others

- **Emotional support** – help from others that eases fears, calms, & makes you feel cared for
- **Tangible/practical support** – concrete aid such as $ aid, needed services, or material resources
- **Informational support** – advice & information made available to help you deal w/ the problem
- **Appraisal support** – helping someone understand a stressor & the resources, coping strategies available

Social Support, Stress & Health

Cohen & Wills (1985) suggests that social support has an effect on stress in 1 of 2 ways

1. **Stress-buffering hypothesis**: when an individual is exposed to stress SS buffers & reduces the impact of stress, but SS will have little impact when stress levels are low
2. **Main effect of SS**: social support is beneficial irregardless of stress levels

Social Support: Effects on Illness and Health Habits

- Social support - buffering
- Social integration – main effects

- High quantity and high quality of relationships
  - Associated with lower mortality rates
  - High levels of social support associated with more adherence to medical regimens
Social Support, Stress & Health

Other issues
- Is all social support helpful?
- How much is too much?
- Does who the support come from matter?
- Perceived vs. received social support
  - ?

Stress Management: How do you know when it works?

Coping outcomes
- Reduction of physiological stress markers
- Return to prestress activities
- Reduction of psychological distress

Stress Management

Techniques
- Humor
- Guided Imagery
- Yoga
- Meditation
- Relaxation Response – Benson
- Stress Inoculation Training
- Physical fitness

Stress Management

Physical practices can help deal with the physiological arousal associated with stress
- Physical exercise may help release built up emotional and physiological tensions
- Relaxation techniques such as PMR, meditation, biofeedback, can help activate restorative functions, calm the mind, body & emotions