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Building Emotional Resilience to Promote Health

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Abstract

In recent years, a growing body of evidence has linked positive emotional health with lower cardiovascular morbidity and mortality, independent of negative emotion. Several potential mechanisms have been posited to account for these associations, including improved health behavior, direct physiological benefits, and enhanced resistance to and recovery from stress among individuals with high versus low positive emotional resources. Links between positive emotion and health have implications for targeted interventions, but no empirical investigations to date have tested the impact of efforts to enhance positive emotion on cardiovascular risk. Nevertheless, some existing data point to the potential value of strategies to increase emotional resources for individuals' functional health and capacity to manage stress.

Keywords

Positive emotion; stress; resilience

Emotions and Health

For the past several decades, empirical evidence has accrued linking a number of psychosocial factors with cardiovascular health. Until relatively recently, the bulk of attention in this area of research has been directed toward examining stress and negative emotions as risk factors for coronary heart disease (CHD) morbidity and mortality. For example, findings from a host of investigations point to more pronounced atherosclerosis and cardiovascular risk among individuals who report high levels of cynical mistrust and hostility toward others¹. Risk for CHD is also associated with depression; individuals who are clinically depressed are more than 2.5 times more likely to develop CHD than those who are not depressed², and depression is associated with lower chance of five year survival following and myocardial infarction³. This concentration on the risk associated with negative emotions has informed prevention and intervention efforts to decrease cardiovascular risk.

Yet the relatively narrow focus on the risk of negative emotional health may have diverted attention away from the exploration of the potential health benefits of positive emotions. Findings from a growing body of research suggest that positive emotions may be a key factor to sustaining health, including cardiovascular health, as we age. One of the most widely publicized studies linking positive emotions and health was the Nun Study, an extraordinary investigation that examined how emotional experiences recorded when the nuns were young adults predicted mortality some six decades later⁴. The emotional content in handwritten 200-300 word autobiographical essays composed by 180 nuns beginning in 1930 were later coded for the expression of positive, negative, and neutral emotions. Sixty years after the essays were composed, mortality among nuns in the highest quartile of recorded positive emotions

was 2.5 times lower than mortality among nuns in the lowest quartile. This difference was far from trivial; it translated in an additional seven years of life among the nuns with the greatest positive emotional expression. Some evidence suggests that positive emotions are an even stronger predictor of mortality than negative emotional symptoms⁵.

The benefits of positive emotion are evident for cardiovascular health as well. For example, vitality is a positive and restorative emotional state that is associated with a sense of enthusiasm and energy. Men and women with high versus low emotional vitality had only 68% of the risk of CHD at a followup of over 20 years⁶. The effect of vitality remained significant even controlling for health behaviors and other potential confounders, including depression and conventional CHD risk factors.

Potential mechanisms for positive emotion effects

What mechanisms may link positive emotions with cardiovascular health? Three possible avenues have received at least some empirical attention: improved health behaviors, direct physiological benefits, and dampened reactivity to and quicker recovery from stress. There is indisputable evidence that certain lifestyle factors, including smoking and physical activity, are associated with cardiovascular risk. Moreover, individuals who report higher levels of positive emotion and vitality are less likely to be smokers and are more physically active than their less happy and energetic counterparts^{6, 7}, and these associations appear to be linear. Health behaviors, however, appear to account for only about 25% of the association between positive emotion and cardiovascular health⁶. Additional work has suggested that positive emotions may have direct, beneficial effects on physiological processes, including those involving the neuroendocrine, inflammatory, immunological, and cardiovascular systems. Recent work has demonstrated that individuals who are higher in positive emotion have lower cortisol output over the course of a day than those low in positive emotion, independent of levels of distress⁸. Moreover, positive emotionality is related to lower ambulatory heart rate in men⁸, and to lower levels of inflammatory markers in women⁹. In addition, compared to those with lower levels of positive emotion, individuals with a positive emotional style are less likely to develop an upper respiratory illness when exposed to the common cold or influenza virus¹⁰. Positive emotion may also provide health benefits by dampening physiological responses to acute stressors. Individuals who are high in positive emotion show smaller stress-related increases in fibrinogen, an inflammatory marker associated with cardiovascular risk,⁸ and more rapid blood pressure recovery following stress than do those who are low in positive emotion¹¹.

Increasing positive mood

The bulk of evidence has suggested that individuals who sustain high levels of positive emotion accrue substantial health benefits. To what extent might lessons learned from observing the behavior of dispositionally happy people help those who are lower in positive emotion accrue some of those same benefits? It is extraordinarily difficult to alter the personality attributes that make us who we are. Yet there is growing evidence that we can act in small ways on a day-to-day basis to boost to our positive mood¹². Below are several strategies to consider, all based on investigations of activities linked to short-term increases in positive mood, but none established as a means of sustaining changes in positive emotion, or of improving cardiovascular health.

Strategy 1: Behave as happy people do

Extraversion is considered a key dimension of personality, and reflects a tendency to be gregarious and outgoing. Relevant to the current discussion, individuals who are extraverted report being happier and more energetic than introverts. When introverts adopt the behavior

of extraverts, however, they are able to substantially increase their positive mood. Fleeson and his colleagues found that when introverts followed instructions to talk more, behave more assertively, and act confident and bold during a discussion with others, their levels of positive emotions increased to the level reported by extraverts¹³. William James, a pioneering philosopher and psychologist in the 18th century said “If you want a quality, act as if you already had it.” Can we “act” our way into greater positivity? Some evidence suggests that, at least for a time, we can.

Strategy 2: Engage in enjoyable activities

Even a relatively small increase in participation in pleasurable activities can provide a boost in well-being. Individuals who were instructed to engage in more frequent pleasurable activities of their own choosing, for example, reported higher quality of life one month later than those randomly assigned to simply monitor their activities¹⁴. Those assigned to engage in two activities experienced the same boost in positive mood as those assigned to engage in 12 pleasant activities. A variety of activities can engender increases in positive mood, including ordinary events that are infused with positive meaning and events that produce progress toward goals individuals consider important to them¹⁵.

Strategy 3: Share with others

In everyday life, we encounter opportunities to engage in positive connections with others. Studies that have included diary reports of daily mood and small positive interpersonal events, like having receiving a compliment or sharing a meal, show that individuals experience a boost in positive mood when they have the chance to socialize in an enjoyable way with family, friends, and co-workers¹⁶. (Interestingly, the people who seem benefit most from positive interpersonal events are those who are more introverted.) And when individuals share positive events and good news with others, they get an especially large and prolonged increase in positive mood, “capitalizing” on the boost provided by the positive event itself¹⁷. The mechanisms accounting for the benefits of sharing are not yet clear, but perhaps the act of retelling or reliving the event helps to increase accessibility of the event in memory, and/or to strengthen relationship bonds.

Strategy 4: Lend help

Altruistic behavior that is motivated by concern for others without the expectation of reward is associated with improved well-being. For example, helping neighbors is a strong prospective predictor of positive affect¹⁸, and individuals who engage in more hours of volunteering report higher levels of well-being¹⁹. Even more persuasive are data from investigations that randomized individuals either to a brief intervention that explicitly attempted to increase helping behavior or to a neutral control condition. Compared to controls, individuals who were encouraged to either count the acts of kindness they performed toward others²⁰ or to perform more acts of kindness¹², reported increased levels of happiness and positive mood. Ralph Waldo Emerson appears to have been right when he said that “Happiness is a perfume which you cannot pour on someone without getting a few drops on yourself.”

Strategy 5: Take a “nature” break

Exposure to natural environments, like parks, forests, and fields, is associated with better health and health-related behaviors²¹. In fact, spending as little as an hour in contact with nature (versus in an urban setting) appears to have a restorative effect, both increasing positive emotion and decreasing negative emotion and physiological arousal²². Moreover, taking a break in an outdoor setting like a garden may improve concentration, even compared to spending a similar amount of time in a pleasant indoor setting.

Strategy 6: Be physically active

Acute bouts of physical activity are associated with short-term increases in positive mood, even on days when negative daily events occur²³. Some activities may be more effective than others in boosting positive affect, however. In particular, aerobic activities appear to elevate positive mood more than do nonaerobic activities, including yoga and body conditioning. Debate continues regarding whether engaging in regular exercise results in long-term changes in mood among individuals who are not depressed, but the evidence consistently points to immediate benefits in terms of positive mood.

Strategy 7: Increase mindful awareness

When individuals are more attentive to the activities they are engaged in day-to-day, they are more likely to experience positive emotion²⁴. Being “mindful” of momentary experiences allows individuals to act in ways that are consistent with their values and interests and may increase their sense of autonomy and choice. Cultivation of mindful awareness, therefore, should be associated with increased positive affect. In fact, a number of interventions designed to increase momentary awareness by encouraging the adoption of regular mindfulness meditation practice have yielded promising effects. In randomized clinical trials, mindfulness-based interventions have improved measures of well-being among healthy individuals as well as among those managing a chronic illness²⁵⁻²⁷. Although few data are available regarding the mechanisms whereby mindfulness practice boosts positive emotion, Davidson and colleagues²⁸ have reported that mindfulness meditation results in increased left-sided activation of the brain during both positive and negative mood inductions, a pattern associated with increased positive affectivity.

Positive emotion enhancement in health promotion

The capacity to harness positive emotion in daily life may be a key ingredient to resilience, helping individuals to persevere in the face of challenge, speeding recovery from transient life difficulties, and sustaining quality of life in the face of more chronic stressors. Additional work will be needed to determine whether a focus on building or enhancing individuals' existing positive emotional resources ultimately improves physical health over the long term. Nevertheless, the empirical literature to date can serve as the basis for expanding current behavioral interventions. Clinicians should consider broadening their perspective to consider not only reducing psychological distress but also promoting positive emotions and life engagement in their patients. The strategies to boost positive emotion included here are diverse, and have the advantage of requiring only modest changes in day-to-day activities to accrue mood benefits. Yet securing even small changes over time requires effort and may be best achieved by altering the structure of daily life to encourage regular participation in positive activities.

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