

The Health Cost of Leadership

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Most of us admit we have a problem with work stress. According to the American Psychological Association, over 60% of boomers, Gen-Exers and millennials consider work a “somewhat or significant stressor.” We know what this stress feels like: the rebuke of impossible-to-satisfy bosses, more deadlines than we can meet and criticism from unsupportive coworkers. But, what is stress? The National Institute of Mental Health defines stress as the brain’s response to any demand: perceived or real, positive or negative. The brain then responds to the stressor using hormones and chemicals. In the short-term, this response promotes survival, but if prolonged, it can compromise the immune response and dysregulate the digestive, excretory and reproductive systems. In addition to this endocrine response, we often inflict health vices on ourselves when facing stress: minimal sleep, fast food and little exercise. These internal and external stress responses are linked with the development of depression, anxiety, obesity, diabetes, hypertension and cardiovascular disease (CVD). Overall, stress costs the U.S. approximately \$190 billion dollars per year, 8% of our total healthcare costs.

It is commonly assumed that leaders in the workforce are under the most stress and are at the most risk for developing stress-related diseases. The Center for Creative Leadership (CCL) supports this assumption, reporting that 75% of leaders admit that having a leadership role in their company increases their stress. A meta-analysis conducted by Joel Goh at Harvard Business School found that the higher job demands often associated with company leadership are linked with negative health outcomes. His analysis revealed that high job demands have as much influence on the development of disease as secondhand smoke exposure.

This might not be the whole story, however. A study conducted by Gary Sherman, also at Harvard, measured levels of the stress-related hormone called cortisol in company leaders. Surprisingly, they found that leaders actually had lower levels of cortisol than their subordinates. This finding suggests an inverse relationship

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between leadership status and stress levels. Another study conducted by Robert Josephs at the University of Texas identified the combination of high testosterone and low cortisol as being a key indicator of effective leaders.

The Stress Correlation

The apparent contradiction between these four studies could have several implications. It may mean that leaders recognize the increased responsibility of leadership, but their bodies are more capable of coping with the increase in stress, as evidenced by their reduced cortisol levels. However, this wouldn’t account for the relationship Goh’s study found of the correlation between high job demand to disease development. Another interpretation could be that leaders have a compromised stress response, indicated by decreased cortisol levels in high demand jobs, which could promote disease through mechanisms not yet identified.

The overall relationship between leadership and stress is complicated, but we do have special insights into how stress affects women. The CCL survey, the Sherman study and the Josephs study used a sample population that was predominately male (>60% for all studies). In order to understand the effect of job strain on the female population, where testosterone is presumed to play a lesser role, we can look to a study conducted by Natalie Slopen at Harvard University. Slopen retrospectively looked at the effect of job strain on the risk of cardiovascular disease development in participants of the Women’s Health Study. Women with high demand, high control jobs, indicative of leadership positions, were 38% more likely to experience a CVD event than women in low demand, high control jobs. This suggests a clear health risk for women in leadership. Unfortunately, there are not any current studies looking at differences in cortisol levels between male and female leaders, which would enable us to better understand the effect of gender on the stress levels of leaders.

Work environment may be one of the largest stressors for female leaders. According to the Pew Research Center, women represent 17% of Fortune 500 board members, 5% of Fortune 500 CEOs and 20% of Congress. In science, technology, engineering and mathematics (STEM) professions, where only 25% of all professionals are female, the representation of women in leadership positions is even slimmer. Researchers at Indiana University Bloomington hypothesized that this minority environment creates a negative social environment, resulting in more stress. They found that wom-



en working with an 85% male workforce, such as anticipated for women in STEM leadership, had “dysregulated cortisol profiles.” This suggests a nearly perpetual state of stress for women in male-dominated workforces.

Gender Identity Plays a Part

In addition to work environment, there are several other factors that could be contributing to the stress felt by female leaders within their company. Compared to men, women are less likely to transition out of their home duties as their work responsibilities increase. This may, in part, be due to a clash in a woman’s acceptance of her identity as a woman versus her identity as a leader. This gender identity may also be why women are more likely to participate in behind-the-scenes “housework” activities such as planning parties or mentoring junior employees at the office. Men, on the other hand, who generally find gender identity in their work status, are more likely to attend additional high-visibility work meetings where they are noticed and duly credited. While the contribution quality may be equivalent, women may struggle to be recognized for their investment in the company, contributing to stress during promotion times.

The difference in gender identity may also contribute to a difference in leadership styles. Women tend to practice a “nurture and take charge” leadership style while men simply “take charge.” The nurturing nature of women could be seen as weak, leading women to be criticized as incompetent in predominately male workforces. This contrast in leadership style may have root in the characteristics women and men prioritize in leaders. According to the Pew Research Center, both genders agree that the most important leadership attributes are honesty, intelligence, decisiveness and organization. However, women are more likely than men to also emphasize the

necessity of compassion, innovation and ambition. These values may cause women to have a more compassionate, nurturing leadership style. In addition, these values suggest that women have higher expectations for leaders and will expect more out of themselves as leaders. This may contribute to a woman’s “imposter syndrome” where she does not feel like she deserves her leadership position, further adding to her stress.

Fortunately, the times are changing. More and more companies are recognizing the cost of having stressed employees – both in health-care dollars and productive time lost. Incentives are being put in place that enable us to prioritize sleep, healthy eating and exercise. The value of a supportive community, especially for STEM women, cannot be under estimated. Groups such as your local Association for Women in Science (AWIS) STEM chapter can provide a safe network to learn new skills for coping with stress and how to navigate gender differences at work. As more women join STEM professions, our environment will continue to improve, making our companies a better place to work and a better place to lead. 🌱

If you’re interested in contributing to the study of how stress impacts cardiovascular disease, consider participating in the Health eHeart study at www.health-heartstudy.org.

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