

CONTROL OVER STRESS

A Quantitative Secondary Research Analysis

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Introduction

Stress among American adults is a research topic very often explored by a number of agencies and organizations. According to a 2015 study conducted by Health Communication students at Boston University, 100% of adults surveyed reported to experience some level of stress in their lives. The original study set out to find recommendations for a national insurance company considering developing an employee wellness program with stress relief components. The study explored several factors which might lead to stress in a person's life using a survey instrument with 277 participants. While no recommendations were published, the frequency report, and cross tabs considered by the researchers to be important were made available.

Understanding the prevalence of stress in the population serves as the basis for developing recommendations to reduce stress. With appropriate manipulation of the data sets, many important details can be extracted from the groups who are most successful in managing their stress. The secondary analysis of the 2015 data reveals key factors that could be considered traits possessed by individuals that are better able to handle stress. These key factors will help create a set of recommendations to develop better ways to understand and combat stress. The findings of this secondary data analysis suggest that increasing confidence in a person's ability to control their stressors will result in a decrease of perceived stress in daily life.

Primary Research—courtesy of BU Health Communications, 2015 study

The American Psychological Association's 2013 study on stress found that although 61% of surveyed adults said that managing stress is extremely or very important, only 35% said they were doing an excellent or very good job at it.¹ In essence, that desire did not necessarily correlate with one's ability to successfully manage one's stress. If one could understand and reduce this gap between intention and execution, one might be able to crack the code on improving stress management of the American population. Also, participants with chronic health conditions have reported in previous studies that they feel as though they are living with more stress than those who are relatively healthy.^{2 3}

[This study was conducted] with the goal of building a better understanding of stress and stress management. We were interested in not just the variations in the stress experience, but also how those elements might impact the general adult population's willingness to explore such interventions in their own lives. We also wanted to gauge whether or not such a proposed program would be a worthy and impactful investment. Because this study was exploratory, we did not have a set hypothesis. Instead we wanted to explore stress in adults as it relates to five different research constructs: attitudes, behaviors, perceived control, willingness to try new stress management methods, and demographics.

¹American Psychological Association. (2013). Stress in America 2013.

² Rosen C, Halbesleben J, Perrewé P. The Role Of Emotion And Emotion Regulation In Job Stress And Well Being [e-book]. Bradford: Emerald Group Publishing Limited; 2013. Available from: eBook Academic Collection (EBSCOhost), Ipswich, MA. Accessed January 25, 2015.

³ DeTienne, K. B., Agle, B. R., Phillips, J. C., & Ingerson, M. (2012). The impact of moral stress compared to other stressors on employee fatigue, job satisfaction, and turnover: An empirical investigation. *Journal of Business Ethics*, 110, 377–391.

Methodology

Secondary research was conducted using data obtained from a 25-question online survey administered by a student group from the Master of Health Communication program in 2015. The materials available for secondary research include the introduction and methodology of the original report, the frequency report from the 25 survey questions, and statistically significant cross tabs (as determined by the original researchers). Secondary research was conducted by reviewing data to find trends in order to provide further clarity to the original questions posed by researchers. After reviewing and categorizing data, a hypothesis emerged about the importance of being able to identify stressors in different situations. Graphs and analysis were generated prior to the addition of supplemental reporting from the Mayo Clinic. This supplemental reporting serves as the basis for correlation as the cross tab data provided are limited, resulting in the inability to prove statistical correlation across sufficient metrics.

Primary Research—courtesy of BU Health Communications, 2015 study

To address our research questions, we devised a 25-question online survey, designed for and deployed to adults age 18 and over as our unit of analysis. Respondents consisted of a convenience sample of 277 participants and active solicitation was used when necessary to increase the response rate to the posted survey. This survey remained online for one week, beginning on February 2, 2015 and ending February 9, 2015. Consent to participate in this study was implied upon voluntary completion of the survey and all participants shall retain their anonymity.

The sampling population was broad: all adults (aged over 18 years) who live in the United States. We segmented that population to look at differences between genders; age, student status, employment status, and chronic health conditions status. This segmentation was intended to determine which variables impacted a respondent's experience of stress or stress management. Our measurable constructs were: a. attitudes toward stress; b. behaviors as they relate to stress and stress management; c. willingness to engage in new stress management techniques; d. perceptions of control; e. demographics.

Results & Analysis

For purposes of secondary analysis, frequency reports and limited cross tabs were provided as the data set for the 25-question survey. The frequency report includes descriptive statistics for each measurement. In this secondary analysis, mean values were interpreted for several metrics. The cross tabs provided by the 2015 BU study give additional insight for two primary subcategories: control over stressors, and chronic health conditions. The charts depict the mean values across different measurements. The goal of this data set is to illustrate the factors which contribute to the amount of stress a person reports experiencing.

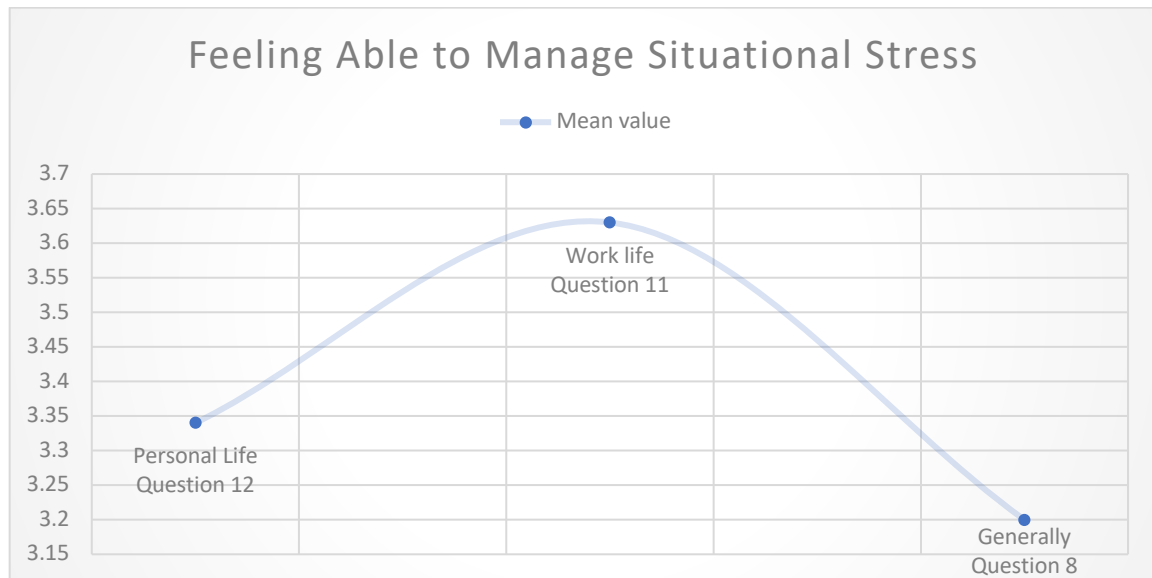


Fig. 1

Respondents report being best able to handle stress at work as compared to feeling able to handle stress in their personal lives, or generally handling stress.

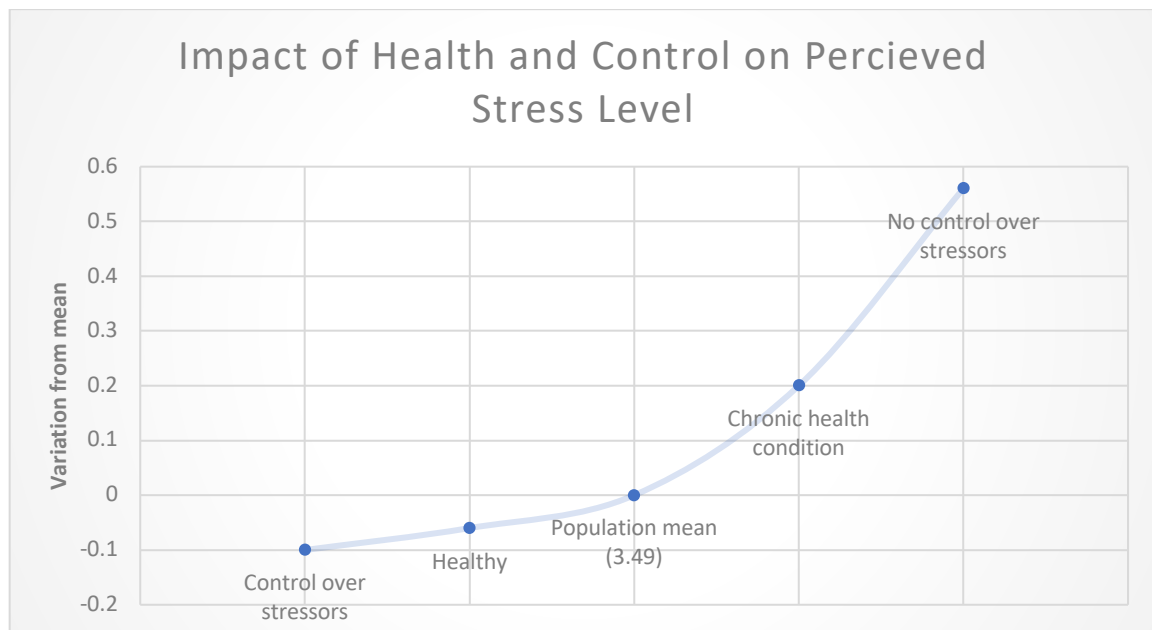


Fig. 2

Mean values from survey question 4 using available cross tabs.

People who do not have chronic health conditions, and those who report having control over their stressors report feeling less stress than the general population and significantly less than their counterparts with chronic health conditions or those lacking a sense of control over stressors. The ability to control stressors is the most significant contributor to perceived stress levels as the mean value for this group is farthest from the population mean. Furthermore, the distance between mean values for people who report having control over stressors and those who do not shows a mean variance of 0.7, highlighting the strength of control over stressors as a key factor in perceived stress.

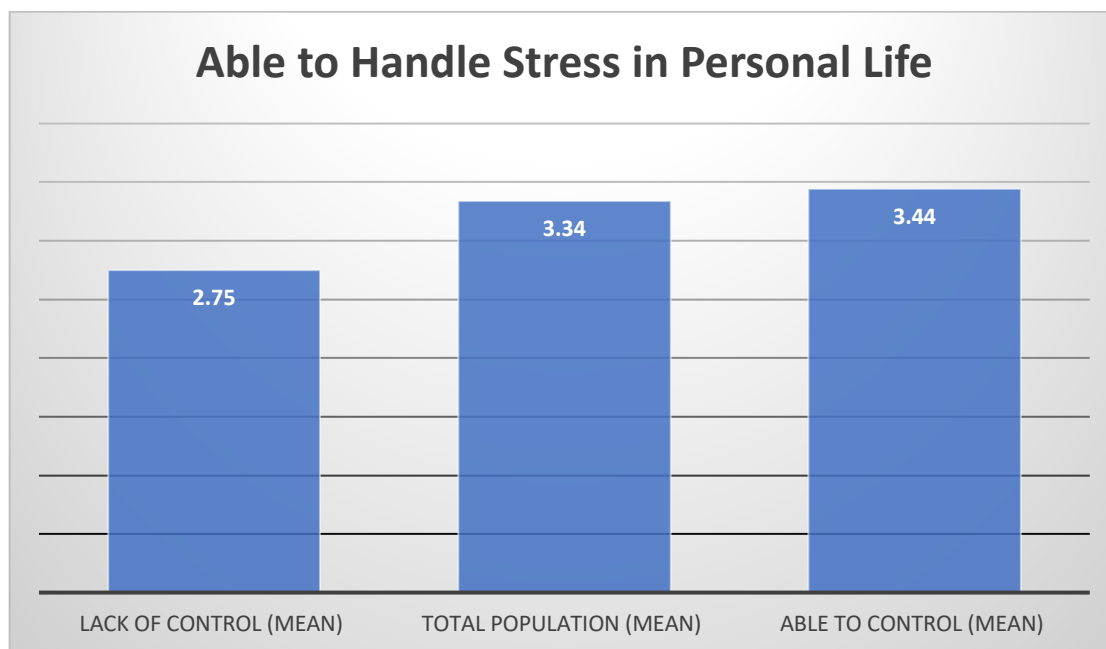


Fig. 3

People who report feeling able to control their stressors are better able to handle stress in their personal lives than the general population. People who do not feel able to control their stressors report feeling less able to handle stress than the general population.

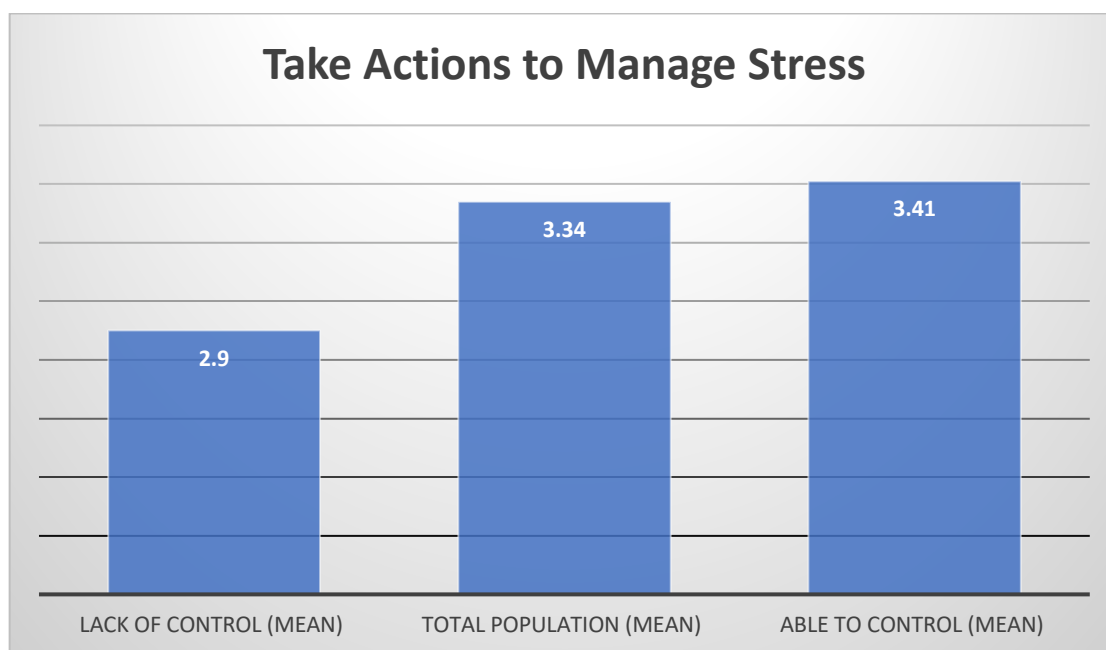


Fig. 4

People who report feeling able to control their stressors report taking actions to manage stress more frequently than the general population and far more than those who do not feel they can control their stressors.

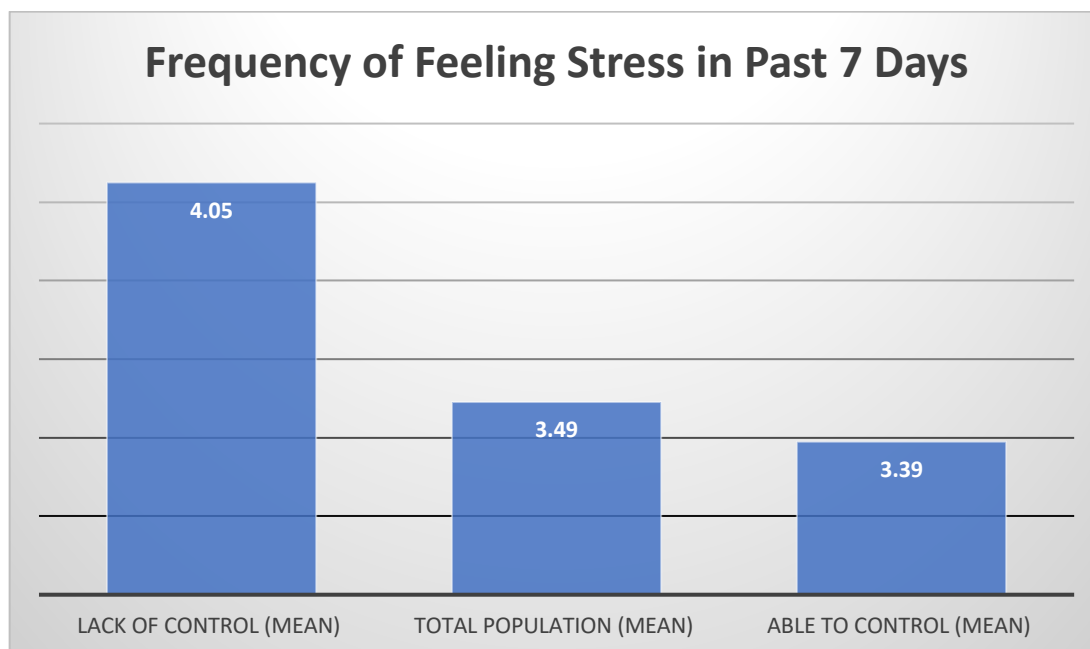


Fig. 5

People who feel able to control their stressors report feeling less stress than the general population and far less stress than those who do not feel able to control their stressors.

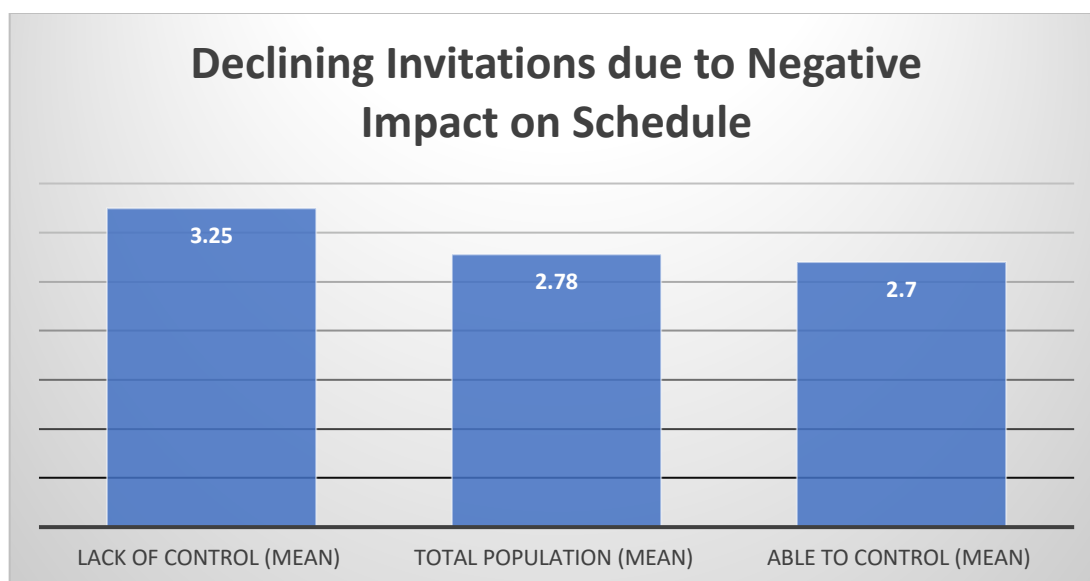


Fig 6.

People who do not feel able to control their stressors decline invitations to enjoyable activities because it will negatively impact their schedule. People who feel able to control their stressors decline invitations to enjoyable activities less frequently than the general population and much less frequently than their counterparts.

Discussion

Identifying the cause of a person's stress may lead to a stronger feeling of control over stressors. Across several metrics, people who feel that they have control over their stressors experience less stress or score respectively better than the general population. These people are also more likely experience enjoyable social interactions as they decline social invitations less often than the general population. The ability to identify the source of stress in a particular situation may lead to feeling a better sense of control over the stressor—a trait that people who experience less stress possess. Survey respondents were asked about three situations in which they might feel stress: in their personal life (question 12), in their work life (question 11), and more generally in their life (question 8). Interestingly, respondents reported feeling better able to handle stress associated with particular situations like work or personal life than they did with stress more generally. This may suggest that the categorization or identification of potential stressors by environment or situation helps aid in the feeling of control. This is not an entirely surprising finding as we commonly associate the “*fear of the unknown*” with high levels of stress.

To further understand the statistical findings of the secondary data analysis, additional information about managing stress from the Mayo Clinic has proved useful in establishing a correlation to a trend observed in the data. In an article called Stress Management: Know your triggers, the clinic asserts that recognizing stressors is the first step in learning to manage or control stress. They further cite uncertainty and lack of control as key components to stressors they call “internal irritations”.⁴ General recommendations for relieving stress include physical exercise and mental reframing of the problem but the recommended tactic depends on the situational category of stress. The Mayo Clinic categorizes stress into two groups: external and internal. A summary of the Mayo Clinic's definitions and recommendations are listed below.

Situational Stressor: External Exasperators
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Stressors called external exasperators make up the category which covers major life changes, unpredictable events, workplace challenges, and social situations.

Recommended Action Steps: Lifestyle Changes
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Stress relief recommendations for the external exasperator category center around lifestyle changes like physical exercise, changes to diet, problem solving, and time management.

Situational Stressor: Internal Irritations

Stressors called internal irritations make up the category which covers fears, uncertainty/lack of control, and beliefs.

Recommended Action Steps: Positive Reframing

Stress relief recommendations for the internal irritations category center around reframing negative thoughts, using relaxation/mindfulness techniques, and speaking with others.

⁴ Staff writers, Mayo Clinic (2019, March 28). *Stress Management: Know your triggers*. Retrieved from <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-management/art-20044151>

The primary finding from the secondary analysis of the data is that people who feel able to control their stressors fair better across several metrics. While 100% of respondents reported feeling some stress (above zero), those who felt more able to control their stressors reported less stress overall. Individuals who report feeling able to control their stressors also take action to manage or reduce stress more often than the general population. The data establishes a clear trend to begin establishing a correlation between stress and control. By feeling control over situational stressors, a person can begin to feel able to combat the source of their stress and ultimately reduce the amount of perceived (general) stress they report. While there are a variety of factors to consider, being able to control stressors may begin with identifying the situation in which stress is perceived. Further, having the ability to control stressors showed to have the most positive effect on stress level compared to the general population, even beating a person's chronic health condition status. The findings of this secondary data analysis suggest that increasing confidence in a person's ability to control and identify their stressors will result in a decrease of perceived stress in daily life.

Limitations

The secondary analysis was limited to a data set provided by the 2015 BU study. The cross tab data was incomplete and a further analysis of all SPSS, or raw data would be required. In order to accurately recommend action items, it would be necessary to look at a set of cross tabs showing the actions that individuals who are good at managing stress, or who report good control over stressors exhibit. The data sets provided in this secondary analysis do not allow for such comparisons to be drawn. The inferences we can make from the data given help to show a direction for further research, but I would be cautious to assert any statistical correlation from this incomplete data.

Fig. 3

Ideally, data about situational stress in work life reported by those who feel able to control their stressors and those who do not would be included. Comparison to the population mean could determine whether a true correlation exists as it would directly compare the groups respective to their ability to control stressors. With the data provided, I looked for trends to support the hypothesis that people who do not feel that they can control their stressors experience more stress. With the omitted data, strong correlation may be found across multiple situational categories to further support the hypothesis.

While the 2015 study asked questions about specific actions taken by respondents to manage stress (physical activity, meditation, etc.), there were no cross tabs available to compare mean values between groups who feel able to control their stressors and those who do not. This information would be valuable in defining which activities people who feel able to control stressors engage in. Access to this data could establish a true statistical correlation without relying on the published findings of the Mayo Clinic to support the data trend.

Additionally, a new survey instrument should be created to probe the behaviors and tactics used by people who report that they feel able to control their stressors. Special attention should be paid to stress relieving actions, stressor identification tactics, and demographic information. The goal of learning more about these people is to see whether there are any correlations that can be made which apply to the general population.

Suggestions for further research

While the limitations of the data set did not allow secondary research to be completed as thoroughly as this researcher would have wanted, there is a clear direction to advise further research. Given the limitations of the data provided for analysis, a data-driven public awareness campaign would not be recommended at this time. There are many questions which should be researched and answered before any conclusive findings are published.

Following the guidelines set out in the Mayo Clinic webpage mentioned earlier, understanding the different sources of stress will be a key factor to understanding the traits that people who report feeling able to control stressors exhibit. Research here should try to answer the question of whether different types of stress require different tactics or if there is a wide-sweeping benefit to identifying the stressor regardless of context.

According to the secondary analysis of the 2015 BU data, people feel the most able to handle stress at work. Reviewing this data in the context of the Mayo Clinic's recommendations, researchers should explore whether reported workplace stress is the same type of stress that is reported at home. This could be achieved using a survey instrument or in-depth interviews to extract meaningful insight on how people differentiate, or not, between situational stressors.

Addressing the problem of reducing the amount of stress a person perceives requires an understanding of the context and situational stressors affecting the individual. In addition to context, the measured level of confidence in a person's ability to control their stressors would allow predictions to be made to estimate whether perceived stress is higher or lower than the general population in a given situation. This understanding could be a valuable tool in better teaching people how to deal with stress. The secondary interpretation of the data shows that there are traits and characteristics inherent to people who report having less stress than others. Defining these traits and stress management tactics could help in the development of a set of tools for reducing stress.

Bibliography

¹American Psychological Association. (2013). Stress in America 2013.

² Rosen C, Halbesleben J, Perrewé P. The Role Of Emotion And Emotion Regulation In Job Stress And Well Being [e-book]. Bradford: Emerald Group Publishing Limited; 2013. Available from: eBook Academic Collection (EBSCOhost), Ipswich, MA. Accessed January 25, 2015.

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¹ Staff writers, Mayo Clinic (2019, March 28). *Stress Management: Know your triggers*. Retrieved from <https://www.mayoclinic.org/healthy-lifestyle/stress-management/in-depth/stress-management/art-20044151>