Workplace Performance is Affected by Employees' Perception of Stress

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Abstract

This paper looked to determine the relationship between employees' perception of stress and workplace performance. Stress was categorized into two categories: threat and challenge. A threat response was triggered when there were not sufficient resources to address demands and a challenge response was triggered when there were sufficient resources to meet the demands of the stressor. It was hypothesized that stress when perceived as threat would result in lower work productivity and stress when perceived as challenge would result in higher work productivity in employees. A meta-analysis was conducted in order to determine whether perceptions of stress affected workplace performance and found that the hypothesis was supported. Future research is needed to study the direct relationship between perception of stress and employee work productivity as, to my knowledge, there are none that exist currently.

Keywords: Threat, challenge

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Employees all around the world, regardless of what industry they are in, experience one unavoidable feeling: stress. Whether it be from work, their personal life, or underlying emotional issues, stress has the same fundamental effects on those that perceive it negatively and it can result in decreased workplace performance. This is due to the overwhelming number of employees that perceive stress as a negative physiological response. Workplace performance is hindered by stressors that are perceived as a threat to homeostasis and result in a negative stress response. Unless a person is educated on the different types of stress responses, it is very common for them to only experience negative bodily feedback. An employee's perception of stress affects how it will affect their body which, in turn, affects the degree to which their workplace productivity is inhibited or enhanced.

Throughout this paper I will define what stress is, explain the effect that it has on work productivity, discuss current remedies to workplace stress, differentiate between the two ways stress can be perceived, explain how that perception affects the body's response, and how this alteration in thinking can result in increased work productivity. After all this information is presented, I will explain the importance of educating employees about how their perception of stress can affect their work productivity and why this can be more valuable than other stress reduction techniques.

What is Stress?

In order to understand why stress is able to be perceived in multiple ways, it must first be understood why most people associate a negative connotation to the word in the first place. This is ultimately due to the way that stress is defined by many. One definition refers to stress as a "state of psychological tension" in which a person's "behaviors, work outcomes, and

relationships with other people" are affected "in a negative way" (Demir, 2018). The words that are used throughout this definition such as "tension" and "negative" are part of the reason why so many people believe that stress can only ever result in negative bodily responses. There is no part of this definition that could lead anyone to believe that stress can have a positive result on a person's behavior, work, or personal relationships. Another definition that adds to the misconception that stress only ever does the body harm states that it is "a physiological and emotional reaction to potential threats in the environment" (Demir, 2018). The word threat (which will be explored later in this paper) is the key word in this definition because it carries a negative connotation and makes the person believe the external stimuli that they are experiencing is harmful to their wellbeing.

Another form of stress that is defined in a negative light and contributes to hindered workplace productivity is occupational stress. Occupational stress is defined as stress that is "created and related to occupation and its environment" and causes "absenteeism, lack of motivation and initiative, low productivity and service efficiency, job dissatisfaction and disruption of the smooth functioning of the organization" (Devi & Lahkar, 2021). Occupational stress, as evidenced by this definition, is not only believed to harbor only negative results in terms of productivity but is actually expected. It is a normal feeling to be stressed in the workplace, but it is about how that person responds to it that dictates how it will affect their body. This definition, however, gives anyone who reads it the assumption that decreased work productivity and motivation are unavoidable when dealing with any form of occupational stress. This is extremely problematic and needs to be remedied because promoting negative behaviors as normal won't benefit the company at all.

How Does Stress Affect Work Productivity?

A plethora of studies have been conducted to determine the relationship between stress and workplace performance. As could be expected, stress was found to significantly decrease work productivity in most studies. Research that was conducted studying the effect of stress on work ability in aging American workers found that stress was "significantly inversely associated with work ability" (Yang et al., 2019). In fact, the results of this study showed that as little as "a one percent increase in stress decreased work ability score by about .0342 points." Another study conducted researching the effect of occupational (job) stress on job performance in library professionals located in North-East India found that there was a "highly significant [inverse] relationship" between the two variables (Devi & Lahkar, 2021). Moreover, it was determined that occupational stress alone accounted for "8.8% of the variance in job performance." This is concerning because occupational stress only consists of stress caused by the workplace and not the other factors of their lives such as their personal life. Therefore, if stress caused by the workplace alone is enough to make productivity suffer, the addition of all other stressors in an employee's life will magnify its effect and hurt their performance even more so. This result of stress' effect on workplace performance, however, is limited to only the studies that examined how negative stress affects productivity. One study researching the effect of stress on performance in police recruits found that cortisol levels increase following a stress exposure and "higher cortisol levels… were significantly associated with better performance" (Regehr et al., 2008). Another study that saw positive results from stress investigated the effect of psychological capital on stress in teachers and found that despite the constant stress they are under, it is still possible for them to have increased work productivity. This is due to psychological capital capacities that can influence the way teachers view stress. Capacities such as "hope, self-

efficacy, resilience, and optimism" were found to counteract the feelings of stress and led to "positive work outputs" (Demir, 2018). This is a perfect example of how the perception of stress matters in terms of what effect it will have on the body. Positive work outputs were possible due to a positive outlook despite constant pressure and stress from their work environment. Not everyone has the capacities necessary to produce positive work outputs in stressful times and, instead, they may "reduce effort and attention toward work as a means of avoiding perceived threats" (Rosen et al., 2020). In other words, employees look to distance themselves from stressors as a way to reduce stress but, in doing so, also reduce their work output. This is a common reaction and is one of the main contributors to lower work productivity in stressful situations.

Current Remedies to Workplace Stress

Ill effects of stress on workplace performance require employers to come up with tactics to combat and reduce low productivity in their employees. Some ways that this is done comes in the form of vacation days, remote working, and other organizational practices. Relying on employees taking vacation days as a way to decompress is not beneficial to the company because it significantly limits the amount of work that can be accomplished in the office. Employers recently, however, have been relying on promoting individual-level interventions such as exercise or yoga that employees can do on their own time as their primary stress reduction technique (Grawitch et al., 2015). Other organizational practices that companies utilize take the form of primary and secondary-level interventions. Primary interventions are more future-oriented and identify "risk factors that could pose a threat to a person's health" while secondary-level interventions focus on educating employees how to better perform their job, so they aren't as stressed. These methods are effective in that they reduce stress in the short-term, but it does

not provide a permanent solution. Individual-level interventions require a lot of trust in employees that they participate in stress reduction techniques such as exercise or yoga on their own time. Overall, these stress reduction methods are a band-aid on a wound that requires stitches. Employers need to stop promoting stress reduction techniques because they are short-term fixes for a long-term problem. This could be avoided completely if employers and employees alike understood just how much their perception of stress can impact their physical wellbeing and work productivity. For this reason, employers should promote stress management as opposed to stress reduction by educating employees about the importance of stress perception and the role it plays in dictating their performance and productivity in the workplace.

Challenge and Threat

As stated previously, there are different ways that stress can be perceived. The two ways that stress can be perceived are categorized into two groups: challenge and threat. A challenge response is triggered "when people believe they possess sufficient resources to cope with stressors" and a threat response is triggered "when situational demands are seen as exceeding resources" (Jamieson et al., 2012). In a sense, a person's perception of stress acts as a self-fulfilling prophecy meaning that their perception alone dictates how the body will respond to it. Whether a person has sufficient resources to combat stressors they experience is irrelevant because what really matters is what they believe. In both stress responses, cardiac contractility is increased which causes blood to be pumped at a higher rate than unstressed individuals (Blascovich et al., 1999). The difference between the two stress responses, however, comes in the form of systemic vascular resistance. Those that experience a challenge response experience a decline in vascular resistance which allows for increased blood flow and no changes in blood pressure. Threat responses differ because it causes "no change or even slight increases in

systemic vascular resistance" which "produces noticeably increased blood pressure" (Blascovich et al., 1999). The perception of stress as a threat has become somewhat of a social normality as most people only ever associate a negative connotation to stress and, as a result, experience the ill effects that come with it. One reason why this is the case is that most people perceive increased heart rate as "anxiety, nervousness, or fear" and this encourages them to "perceive demands as exceeding resources, triggering a maladaptive threat response" (Jamieson et al., 2012). A lack of knowledge regarding the types of stress responses is also to blame because an overwhelming number of people believe that there is only one possible type of response and always associate it with threat due to the reasons listed previously.

Predisposition to Threat

Whether someone interprets stressors as challenge or threat is not always up to them to decide. Those that suffer from anxiety disorders are much more likely to look at everything that happens in the world as a threat to their overall health. In fact, those that "consistently experience anxiety in stressful situations tend to anticipate and expect failure and negative evaluation" (Dandeneau et al., 2007). This can be problematic because if people with anxiety disorders are constantly expecting negative feedback from their body in times of stress, that is most likely what they will get. It is more difficult for them to trigger a challenge response due to their pessimistic nature and outlook on life. Therefore, employers should be more attentive of those that suffer from mental illness to ensure that they have the necessary tools and help so that they can avoid threat responses and the lower work productivity that accompanies it.

How Perception Affects Bodily Responses

Overall Health Suffers

The study "Does the Perception that Stress Affects Health Matter? The Association with Health and Mortality**"** was conducted with the objective of looking at the relationship between stress perception and mortality rate. This was done by surveying a nationally representative sample of U.S. adults regarding how they believed stress affected their body and then comparing those answers to the National Death Index mortality data. Subjects were asked whether they experienced high, low, or moderate levels of stress and then asked to what extent they believed that stress affected their overall health. The results of this study showed that those who experienced high levels of stress and held the belief that it was harmful to their body had "an increased likelihood of worse health and mental health outcomes" (Keller et al., 2012). Worse health was somewhat of an understatement because the results also showed that there was an interaction between stress and participants' perception of it because they "had a 43% increased risk of premature death" if they perceived stress as a threat. Therefore, those that hold pessimistic assumptions regarding how stress affects their body are much more likely to have worse overall health which may lead them to feel even more stressed creating a never-ending cycle. The information provided in this research holds significant implications about how stress can affect the body because it shows the extent to which perception plays a role in a person's overall health. One other thing that was determined from this study was that "negative expectations" may lead people to "exhibit negative health symptoms" regardless of whether any stress was present at all (Keller et al., 2012). As stated previously, this can be problematic for those that suffer from mental health or anxiety disorders because they are much more likely to expect the worst in every situation.

Another way that a threat response affects overall health is it increases the risks of developing harmful health conditions. Two such examples are hypertension and diabetes which can come as a result of prolonged activation of the HPA axis (Dandeneau et al., 2007). HPA activation is considered an "adaptive mechanism", so this just shows how important perception really is. If a threat response can be interpreted as a challenge instead, prolonged activation of the HPA axis would not be a possibility and overall health would benefit. Therefore, it is important to determine how to control stress responses to have the most benefits when confronted with stressful situations or environments.

Importance of Reappraisal

The 2012 study "Mind over Matter: Reappraising Arousal Improves Cardiovascular and Cognitive Responses to Stress" examined whether challenge and threat responses could be controlled in order to avoid negative consequences to overall health. This was done by assigning participants to two groups: reappraisal and control. In the reappraisal condition, participants were told that stress is not harmful and "help[s] us successfully address stressors, and that increased arousal actually aids performance in stressful situations" (Jamieson et al., 2012). Both groups were then asked to complete the Trier Social Stress Test which was designed to simulate a stressful situation by having participants complete two stressful tasks. The first was to "deliver a 5-minute videotaped speech in front of two evaluators" and the second was to perform "an impromptu 5-minute mental arithmetic task: counting backwards in steps of 7 from 996" (Jamieson et al., 2012). While performing these tasks the participants were bombarded with negative feedback from the evaluators such as being told to "go faster" or giving off negative facial cues. Participants in the reappraisal condition were found to have "increased perceptions of available resources, improved cardiovascular functioning, and less threat-related attentional bias"

while completing the Trier Social Stress Test. This shows great potential for future use because it can limit the amount of people that experience threat responses which would benefit their overall health. Additionally, the study has real-world applications because reappraisal is not just confined to a laboratory setting. Employees can be educated on how to reappraise stressful situations in the same way that the subjects of this study were. Something as simple as reassuring employees that stress does not have to cause harm or inhibited performance/productivity can go a long way in limiting the amount of threat responses that are triggered. If everyone is educated on the importance of reappraising arousal, the misconception that stress is harmful to the body can become irradicated from society and people can perform better in stressful situations in all walks of life but especially in the workplace.

Another study that examined the importance of reappraising arousal focused on task performance. Past research, as Jamieson et al. (2010) state, showed that interpreting stress as a challenge has significantly improved performance on tasks such as "pattern-recognition, cooperative games, and decision-making tasks." The current study examined whether this was true for standardized tests by splitting subjects into two groups. The experimental group was told that feeling anxious while taking the test may help them do better and to embrace it while the control group was told nothing. The results showed better performance in the experimental group as well as "elevated catecholamine levels" (Jamieson et al., 2010). Catecholamines that are important in the stress response are epinephrine and norepinephrine. These hormones are responsible for triggering a fight-or-flight response which is helpful in stressful situations and part of the reason why those in the experimental group performed better. These results are significant because it holds real-world implications since test takers can immediately go into

their next exam with knowledge of reappraising arousal and perform better than those that experience threat responses.

The final study that looked at how the perception of stress can be controlled researched how attention modification programs might be beneficial in reducing threat. The results showed that attention training was an effective method for "reducing attention bias to threat as well as anxiety response to a social challenge" as evidenced by attention modification program participants' significantly lower scores on the Spielberg State Anxiety Score than those in the control condition following their impromptu speech (Amir et al., 2008). Additionally, the study shows that those with anxiety have less control over their attentional control and may have difficulty avoiding a threat response, but it is still possible. The importance of this study highlights that it is possible to avoid threat responses by shifting attention elsewhere. This doesn't mean that the benefits of a challenge response will be present, but it does mean that they will avoid feeling the negative impact of perceiving stressors as a threat.

How Can Perception Increase Work Productivity?

A person's perception of stress has been found to either aid performance in stressful situations when interpreted as challenge or inhibit performance when interpreted as threat. Additionally, negative stress responses have been proven to significantly decrease work productivity of employees. Therefore, it can be presumed employees that can interpret stress as a challenge rather than a threat will experience increased work productivity, while those who interpret stress as a threat will experience decreased work productivity. If employees become more educated on the possible types of stress responses, they can gain control over how their body responds. Moreover, by manipulating employees' perceptions of stress from threat to challenge they can experience positive physiological responses that result in better performance.

This can be accomplished by employers instituting meetings designated to educating employees about the level to which perception of stress affects the body. This can simply be accomplished by reinforcing the ideas that were present in all studies regarding reappraisal. Employers can inform their employees that stress does not always have to be harmful and that it can even benefit their overall performance and provide proof to show that what they are saying is true. Additionally, these meetings should emphasize stress management as opposed to stress reduction because stress reduction only limits the effects of threat responses meanwhile managing stress and controlling it so that you trigger a challenge response adds benefits to employees' overall health and work productivity.

Conclusion

Stress is an unavoidable feeling that all employees experience. The effect that stress has on the wellbeing of employees is directly correlated to how it affects work productivity. Stress can be perceived in two ways: challenge or threat. Workplace performance is inhibited by threat responses but enhanced by challenge responses. An employee's perception of stress affects how it will affect their body which, in turn, affects the degree to which their workplace productivity is inhibited or enhanced. Due to an overwhelming number of employees that only ever perceive stress as a threat, work productivity suffers. To combat this, companies and employers should educate their employees about how their perception of stress can affect their work productivity. This topic is debatable because to my knowledge, there are no studies that have been conducted that research the direct effect that an employee's perception of stress has on their workplace productivity. However, it can be hypothesized based on previous research that perceiving stress as a challenge rather than a threat will cause for better performance and a less-stressed work environment. Despite there being no studies conducted studying the direct relationship between

perception of stress and work productivity, the topic of this paper has real-world applications because it can be concluded based on the relationships between perception of stress, stress, and work productivity that perception affects how stress affects the body which then affects overall work productivity.

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