

## Character Strengths Use and Perceived Stress: Correlational Study among IT Employees

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This study seeks to explore the overuse, underuse and optimal use of character strengths and their relationship with perceived stress. To examine the relationship, the study adopted a correlational research design. This sample consisted of IT employees aged between 25 and 35 years, working full time with a minimum of 2 years' experience in the organisation. The total sample size was 80 individuals. The variables were measured using questionnaires such as the Overuse, Underuse, Optimal-Use of Character Strengths Scale by Freidlin, Littman-Ovadia, & Niemiec, and The Perceived Stress Scale (PSS) by Cohen. The findings of the study suggested that overuse of character strengths score and perceived stress score ( $r=.220$ ,  $p<0.05$ ) was positively correlated. However, there seems to be negative correlation ( $r= -.552$ ,  $p<0.01$ ) between optimal use of character strength and perceived stress. Further, underuse of Character Strengths demonstrates a positive correlation with perceived stress ( $r = .560$ ,  $p < 0.01$ ). From the study, it can be concluded that optimal use of character strength can lead to a lower level of stress and promote well-being.

**Keywords:** Overuse, Underuse, Optimal Use, Perceived Stress, IT Employees.

The IT industry is one of the most booming industries in our current digital economy. Almost 43% of IT professionals from India show symptoms of burnout or chronic stress, leading to mental issues like anxiety and depression (The Economic times, 2024). High-stress working environments are affecting the individual health of employees and the overall productivity of the organisation. This creates a complex system of continuous development of technology, precision-driven work, long working hours and chronic stress.

With the increase in stress levels, organisations have been employing wellness strategies to address the growing concerns of their employees that affect the productivity of the organisation. One of these organisational approaches is the traditional method, which is based on managing stress through wellness programs and flexible arrangements. However, that method has

proven to be limited and seems to have a temporary effect in addressing the source of distress (Grawitch et al., 2017). Such constraints necessitate trait-based interventions that can serve to develop resources for mental health and well-being among employees. Contrary to the traditional method, trait-based interventions aim at enhancing such innate psychological strengths as resilience, emotional intelligence and strengths of character (Harzer & Ruch, 2015; Niemiec, 2019). Such methods seem to focus on mental health and well-being through empowering employees with effective strategies in handling stress.

Character strengths have been argued to be at the core of well-being in positive psychology. These traits positively influence well-being as a whole and contribute to positive functioning (Peterson & Seligman, 2004). Positive psychology is the "scientific study of ordinary human strengths and

virtues”(Sheldon & King, 2001, p. 216). The term encompasses various theories and research studies that examine the factors contributing to an individual's subjective experience of a fulfilling life (Park, Peterson, & Seligman, 2004; Seligman & Csikszentmihalyi, 2000). One of the key elements of an individual's well-being is based on the efficient use of their character strengths, which in turn, largely determine how they face and cope with adversities in their lives, handle stress, and experience a sense of life satisfaction (Seligman, 2002). Character strengths are those positive aspects that differ in strength and are expressed in our cognition, emotions, and behaviour (Park et al., 2004). For example, overuse of perseverance can result in burnout, while underuse of assertiveness can result in poor communication. Rudolph et al. (2025) meta-analysis supports this stance, showing optimal application of character strengths to be positively related to better job performance and psychological well-being. Their conclusions point out that when workers use their strengths in balanced, context-relevant forms, they have higher work satisfaction, productivity, and overall mental well-being.

One of the factors that can have an important impact on the application of character strengths is perceived stress (Cohen, Kamarck, & Mermelstein, 1983). Stress has a profound impact on people, organisations, and communities as a whole. Particularly, in the case of IT employees, perceived stress can influence the effectiveness with which they apply their character strengths, which affects their performance and overall well-being. As per the findings of Carver and Connor-Smith (2010), stress may result if a person faces a challenging situation, hindrance, or impending danger that makes it difficult to cope. Workload, task deadlines and disputes

with co-workers are common sources of stress at work (Vagg and Spielberger, 1998). This occupational stress phenomenon has been widely researched and has been found to yield negative effects on employees. These effects could have a profound impact on the overall performance of the organisation. They may cause dissatisfaction of employees, lower levels of productivity, higher levels of absenteeism, and higher employee turnover. Various researchers have pointed out these consequences (Landsbergis, 1988; Karasek and Theorell, 1990; Cooper and Cartwright, 1994).

People apply varying strategies to cope with and reduce stress, to directly tackle the origin of stress or indirectly reduce the resulting emotional strain (Carver & Connor-Smith, 2010). The implementation of strategies and interventions aimed at cultivating character strengths has the potential to facilitate a constructive interpretation process when faced with adversities (Harzer & Ruch, 2015; Martínez-Martí & Ruch, 2017; Niemiec, 2019; Park & Peterson, 2008). Following the prior research studies of Lee et al. (2019) and T. Li et al. (2017), it has been significantly noted that individuals with high levels of character strengths have lower levels of stress and show a positive psychological adaptation to stress. It can be reasoned, following these findings, that when individuals are exposed to higher levels of stress, their potential to apply their character strengths effectively is likely to be hindered, leading to lower outcomes that are associated with their well-being. Conversely, it can be presumed that during times of experiencing low stress, the positive effect of character strengths on overall well-being will be significantly more prominent and evident.

Although the contribution of character strengths to perceived stress is well

established, their overuse and underuse and the impact are not studied as much, particularly in the case of IT employees who are engaged in cognitively and emotionally challenging demands. This research examines the strength use pattern and perceived stress among Indian IT professionals. Employing Freidlin et al.'s (2017) measurement approach, this examines the interrelation between underuse, optimal use, and overuse of strengths and stress. The result will inform strength-specific organisational interventions, from stress management in general to the design of strength-specific interventions. By examining which strength use patterns are associated with stress outcomes, this research sets the stage for effective well-being interventions in high-pressure work.

### **Objectives**

To examine the overuse, underuse and optimal use of character strengths and its relationship with perceived stress among IT employees.

### **Hypotheses**

- H<sub>1</sub>: There is a positive relationship between the overuse of character strengths and perceived stress among IT employees
- H<sub>2</sub>: There is a positive relationship between the underuse of character strengths and perceived stress among IT employees
- H<sub>3</sub>: There is a negative relationship between optimal use of character strengths and perceived stress among IT employees

### **Method**

#### **Sample**

A Correlational research design was considered to examine the relationship between character strengths use and perceived stress. The sample consisted of 80 IT employees (52 males and 28 females) aged between 25 and 35 years, working full-

time with a minimum of 2 years of experience in the same organisation in Chennai, Tamil Nadu. Participants were selected using a purposive sampling method.

### **Tools**

*The Over-Under-Optimal-Use of Character Strengths Scale* (Freidlin et al., 2017), and *The Perceived Stress Scale* (PSS-10; Cohen, Kamarch, & Mermelstein, 1983) were considered for obtaining responses. The over-under-optimal use scale comprises 24 items that measure overuse, underuse, and optimal use of the 24 character strengths. Participants are asked to rate every strength on a 3-item continuum (underuse, optimal use, overuse) from 0 to 100%. Each response is given in the percentage form, reflecting the extent of underuse, overuse and optimal use of each of the 24 character strengths (72 responses in total). The scale was shown to be highly reliable, with Cronbach's alpha coefficient of 0.91 for optimal use, 0.86 for underuse, and 0.83 for overuse.

*The Perceived Stress Scale* (PSS) is composed of 10 items that ask participants to rate how frequently they have had specific thoughts and feelings related to stress. The evaluation is carried out through a 5-point Likert scale in which the participants are requested to provide their agreement on a scale from "0" (no occurrence) to "4" (very frequent occurrence). The overall perceived stress score of respondents is calculated through summing their answers, which range from 0 to 40. Cronbach's alpha has exhibited high values consistently for the PSS, within a range of 0.70 to 0.90.

### **Procedure for Data Collection and Analysis**

IT employees residing in Chennai, Tamil Nadu, were approached for data collection, and informed consent was obtained. The instructions were provided, and the

responses were collected with the help of The Over-Under-Optimal-Use and The Perceived Stress Scale. The filled-in questionnaires were scored and interpreted according to the norms. The scores were then tabulated and analysed using the Statistical Package for Social Sciences (SPSS- 21 Version). As the current study examines the relationship between the character strengths use and perceived stress, correlational analysis was used for statistical computation of the results and testing their significance. The participants were assured of confidentiality. The participants were given the right to withdraw if they were not willing to continue, as mentioned in the consent form. The data obtained was only used for academic purposes.

### Results

The present section attempts to examine the overuse, underuse and optimal use of character strengths and its relationship with perceived stress among IT employees.

Table 1. Results of the Pearson product-moment correlation for character strengths overuse and perceived stress

Variables	Mean	SD	N	Pearson Correlation	Significant (Two-Tailed)
Character Strengths-Overuse	21.70	19.11	80	.220*	0.05
Perceived Stress	1.86	1.14			

For the research sample (N=80), the overuse of character strengths score and perceived stress score ( $r=.220$ ,  $p<0.05$ ) is positively correlated and is significant at a 0.05 level. Therefore,  $p<0.05$ ; hence, the alternate hypothesis that there is a positive relationship between overuse of character strengths and perceived stress among IT employees has been accepted.

Table 2. Results of the Pearson product-moment correlation for character strengths underuse and perceived stress

Variables	Mean	SD	N	Pearson Correlation	Significant (Two-Tailed)
Character Strengths-Underuse	22.56	22.66	80	.560**	0.01
Perceived Stress	1.86	1.14			

For the research sample (N=80), the underuse of character strengths score and perceived stress score ( $r=.560$ ,  $p<0.01$ ) is positively correlated and is significant at a 0.01 level. Therefore,  $p<0.01$ ; hence, the alternate hypothesis that there is a positive relationship between underuse of character strengths and perceived stress among IT employees has been accepted.

Table 3. Results of the Pearson product-moment correlation for character strengths optimal use and perceived stress

Variables	Mean	SD	N	Pearson Correlation	Significant (Two-Tailed)
Character strengths - Optimal use	54.64	25.43	80	-.552**	0.01
Perceived Stress	1.86	1.14			

For the research sample (N=80), the optimal use of character strengths score and perceived stress score ( $r= -.552$ ,  $p<0.01$ ) is negatively correlated and is significant at a 0.01 level. Therefore,  $p<0.01$ ; hence, the alternate hypothesis that there is a negative relationship between optimal use of character strengths and perceived stress among IT employees has been accepted.

## **Discussion**

The aim of the study was to examine the overuse, underuse and optimal use of character strengths and their relationship with perceived stress among IT employees in India. Pearson product-moment correlation statistical analyses were used for the relationship between the variables. Findings with regard to the association between overuse of character strengths and perceived stress suggested that a positive correlation existed between overuse of strengths and perceived stress. That is to say, overuse of strengths can be linked with an increase in stress among IT employees. Strengths like perseverance or perfection, if overused, can lead to burnout, rigidity, or inability to adapt to evolving job demands (Niemić, 2019). A person with excessive reliance on such strengths as diligence can struggle with delegating responsibilities, and this results in a heavy workload and stress levels. These findings align with other evidence that the strength imbalance can affect well-being (Freidlin et al., 2017).

Conversely, findings regarding the correlation between underuse of character strengths and perceived stress indicated that there was a positive correlation between underuse of character strengths and perceived stress. That is, employees' strengths being underused are likely to be stressed. Underuse could create a feeling of inadequacy, lack of engagement and motivation, which is stress-evoking (Peterson & Seligman, 2004). For example, when strengths like social intelligence are utilised ineffectively, one is faced with problems of working effectively with a team, which leads to conflicts between people and heightened working stress. This discovery supports that a strength imbalance can contribute to the absence of resilience and coping (Littman-Ovadia & Niemić, 2017).

Outcomes also identified a significant negative correlation between optimal use of character strengths and perceived stress. It suggests that when a person uses their strengths in balance, they will experience a low level of stress. Optimal strength use is expected to result in more job satisfaction, self-efficacy, and adaptive coping (Biswas-Diener et al., 2011). For instance, when optimal strengths like creativity are utilised, a person can assist in problem-solving and have less work pressure. These outcomes align with empirical research based on positive psychology that emphasises that optimal application of character strengths is important in building overall well-being and minimising distress.

The results highlight the importance of interventions aimed specifically at the awareness and optimal use of character strengths among IT employees. The integration of holistic workplace training programs with mentoring and strengths-based development initiatives would allow employees to navigate ways for effective use of their strengths that can promote the well-being and success of the organisation.

## **Limitations and Suggestions**

Although there are implications, the study has some limitations that need to be addressed. The correlational design does not allow causal inferences, and self-report scales may lead to response bias. The sample consisted of 80 IT employees, and therefore, the aspect of generalisation of results remains a limitation. Also, factors such as workplace culture, personal life stressors could have affected the results. Future studies might benefit from using longitudinal or experimental designs to investigate causality and the extent to which strength-based interventions can focus on promoting well-being and lowering perceived stress among IT professionals.

## Conclusion

To conclude, IT employees' effective use of their character strengths is shown to influence their perceived stress. It is important to note that overuse and underuse of such strengths are both associated with elevated levels of stress, suggesting an evident correlation. Conversely, optimal use of such strengths is positively associated with low levels of stress, suggesting a positive relationship. Such significant findings demonstrate the value of establishing an optimally balanced strengths-based practice in the workplace with a view to significantly improving employee well-being and overall productivity.

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