

**Coping with the Crisis: The Effects of Psychological Capital
and Coping Styles on Stress during the COVID-19 Pandemic**

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The COVID-19 pandemic and the ensuing measures to socially separate dramatically altered the daily lives of millions of people around the world, substantially increasing anxiety and stress levels for many due to fear, uncertainty, and altered work contexts. Individuals tend to cope with work and personal stress using either adaptive coping strategies that are protective to health or maladaptive coping strategies that are detrimental to health (Holton et al., 2016). Cognitive resources may help to attenuate stress and aid in choosing more adaptive and less maladaptive coping approaches (Brummert, Lennings, & Bussey, 2017). Psychological Capital (PsyCap; Luthans et al., 2007), a multi-dimensional construct that includes hope, optimism, resilience, and self-efficacy, may serve as a positive psychological resource for helping people more effectively cope with the current uncertainty resulting in lower levels of stress. The purpose of the current study is to explore the role of PsyCap as a possible resource for reducing stress through more adaptive and less maladaptive coping styles. We also explore the role of a home working context as a possible moderator of the relationships between coping styles and stress.

PsyCap is a state-like, positive psychological resource that includes having confidence in one's ability to succeed (self-efficacy), making positive current and future success attributions (optimism), persevering and redirecting effort as needed toward goal attainments (hope), and being able to overcome and recover from setbacks and adversity (resilience) (Luthans et al., 2007, p. 3). PsyCap is a second-order construct that has predictive power over and above its four dimensions (Dawkins et al., 2013) and is positively related to a wide range of desirable attitudinal, behavioral, and performance outcomes (Avey et al., 2011). Lazarus and Folkman (1984) suggest that people experience stress when their well-being is threatened because of a perceived lack of resources necessary for meeting and overcoming challenges and difficulties. PsyCap may serve as one critical psychological resource that people may use to cope with stressful events and situations in order to reduce perceptions of stress (Avey et al., 2009). Psychological resources theory (e.g., Hobfoll, 2002) proposes that psychological resources, especially those arranged in multiple-component constructs, have great potential for positively influencing stress resistance and well-being. Indeed, empirical research has shown evidence supporting a negative relationship between PsyCap and symptoms of stress (Avey et al., 2009). Based on this existing theory and research, we posit that PsyCap serves as an important positive psychological resource for mitigating stress in the context of the COVID-19 pandemic:

H1: There is a negative relationship between PsyCap and perceived stress.

Lazarus and Folkman (1984) further explain that there is a complex interaction among individuals, their environments, their psychological processes, and intervening factors such as coping. Coping may be defined as the cognitive and behavioral processes aimed at managing reactions to environmental factors that are perceived as exceeding or exhausting one's resources (Folkman et al., 1986). From a health promotion perspective, coping approaches are generally divided into two categories: adaptive (protective) coping strategies, such as exercise, meditation, and seeking social support, and maladaptive (detrimental) coping strategies, including avoidance, rumination, drug use, and overeating (Holton et al., 2016). PsyCap theory contends that those people who are high in positive PsyCap resources tend to make positive appraisals of their circumstances and their probability for success (Luthans et al., 2007). It seems reasonable to suggest that these positive resources and appraisals may influence individual preferences and choices relating to coping style, and a limited amount of empirical research supports this assertion (e.g., Ding et al., 2015). Consequently, we specifically advance that in the context of the COVID-19 pandemic, PsyCap is positively related to an adaptive coping style and negatively related to a maladaptive coping style:

H2a: There is a positive relationship between PsyCap and adaptive coping style.

H2b: There is a negative relationship between PsyCap and maladaptive coping style.

Additionally, theories of stress and coping (e.g., Lazarus & Folkman, 1984; Folkman et al., 1986), supported by empirical research findings (e.g., Holton et al., 2016), suggest a differential relationship between adaptive and maladaptive coping styles and stress outcomes. On this basis, we expect that in the context of the COVID-19 pandemic, an adaptive coping style is related to lower levels of perceived stress while a maladaptive coping style is related to higher levels of perceived stress:

H3a: There is a negative relationship between adaptive coping style and perceived stress.

H3b: There is a positive relationship between maladaptive coping style and perceived stress.

Despite increasing numbers of people working from home in recent years, relatively little is known about how working from home affects individual well-being and stress perceptions (Song & Gao, 2019). Even less is understood about the effects of working from home during the lockdowns and quarantines associated with the COVID-19 pandemic. Emerging research suggests that the pandemic has had negative effects on individual health and well-being in general (e.g., Mukhtar, 2020). Moreover, prior research found that compared with working in the workplace, working from home is associated with greater stress levels (Song & Gao, 2019). Given these findings, we suggest that in the context of the COVID-19 pandemic, working from home could attenuate the negative effects of an adaptive coping style on perceived stress, while working from home could exacerbate the positive effects of maladaptive coping style on perceived stress:

H4: A home working context moderates the relationships between coping style and perceived stress such that the negative effects of an adaptive coping style on perceived stress are weakened while the positive effects of a maladaptive coping style on perceived stress are strengthened.

Methods

Data were collected during the first week of May 2020 using an online survey resulting in a final sample of 378 full-time working adults. PsyCap was measured using a 24-item scale from Luthans, Avolio, Avey, & Norman, (2007). Adaptive and maladaptive coping styles were measured using a 17-item scale from Moritz et al., (2016). Perceived stress was measured using a 10-item scale from Cohen, Kamarck, and Mermelstein, (1983). In order to frame responses within the context of the COVID-19 lockdowns and quarantines, participants were specifically instructed to evaluate both their coping styles and perceived stress *within the past month*. Our moderator variable was devised for this specific study and asked the following: “During the COVID-19 pandemic, which of the following best describes your work situation?” (1 = working outside the home, 2 = working from home).

Results

Confirmatory factor analysis (CFA) of the latent variables in the conceptual model was performed using Mplus prior to hypothesis testing and showed that the hypothesized four-factor model including PsyCap, adaptive coping style, maladaptive coping style, and perceived stress fit the data better than four alternative models. The model was tested using Hayes’ (2013) PROCESS Model 14 with 5,000 boot-strapped samples and a 95% confidence interval. The results of the hypothesized model were: $F(371) = 62.83, p < .01, R^2 = .50$. Hypothesis 1 concerned the negative relationship between PsyCap and perceived stress ($b = -.11, CI = [-.19, -.03], p < .01$) and was supported. We also found support for Hypothesis 2a, the positive relationship between PsyCap and adaptive coping style ($b = .30, CI = [.24, .36], p < .01$) and Hypothesis 2b, the negative relationship between PsyCap and maladaptive coping style ($b = -.42, CI = [-.51, -.33], p < .01$). The negative relationship between adaptive coping style and perceived stress in Hypothesis 3a was supported ($b = .42, CI = [.20, .65], p < .01$) as well as the positive relationship between maladaptive coping style and perceived stress posited in Hypothesis 3b. Next, we tested for interaction effects. The interaction between adaptive coping style and home-work context did not have a significant effect on the relationship between adaptive coping style and perceived stress ($b = .14, CI = [-.08, .36], p = .21$). Likewise, the interaction between adaptive coping style and home-work context did not have a significant effect ($b = .07, CI = [-.07, .23], p = .33$). Hypothesis 4a and 4b were not supported. Finally, our results provide evidence that coping styles indirectly mediate the relationship between psychological capital and perceived stress. Indirect effects for maladaptive coping style were significant for both those working outside the home (indirect effect = $-.21; CI = [-.29, -.14]$) and those working from home (indirect effect = $-.24; CI = [-.33, -.16]$). Indirect effects for adaptive coping style were significant for those working outside the home (indirect effect = $-.09; CI = [-.15, -.04]$) but not for those working from home (indirect effect = $-.04; CI = [-.09, .01]$).

Discussion

The COVID-19 pandemic has transformed the daily working lives of many individuals, affecting their stress, anxiety, and health in unprecedented ways. This study examined a hypothesized moderated mediation model specifying the potential role of PsyCap as a positive psychological resource for reducing stress through

more adaptive and less maladaptive coping, and the role of a home working context as a possible moderator of the relationships between coping styles and stress. Our findings have important implications for organizational and health research and practice.

Before discussing our study's strengths and implications for theory and practice, we note two important limitations. First, our study utilized a respondent-driven sample. Some have criticized that this leads to samples that do not adequately reflect the general population, because the students recruit the subjects (Kalton, 1983). However, more recent work has shown that scholars have exaggerated this limitation (Salganik & Heckathorn, 2004). Our findings, nevertheless, should be interpreted with some degree of caution. Second, our study employed a cross-sectional design and self-reported data. Cross-sectional data are particularly vulnerable to the threat of common method variance (CMV). Although some research methods experts have suggested that the actual effects of CMV have been overstated (Spector, 2006) and have minimal impact on research findings (Malhotra et al., 2006), we employed *ex ante* strategies designed to reduce possible method biases including using an attention check item and using different scale endpoints and formats for our predictor and criterion measures (e.g. Podsakoff et al., 2003). Nonetheless, readers should here again apply caution in interpreting our results.

Our study has several noteworthy strengths and implications for theory and practice. First, our findings provide support for the idea that PsyCap may function as an important psychological resource for dealing with stressful events and situations, affirming prior research showing a negative relationship between PsyCap and stress (e.g., Avey et al., 2009). Second, our study also provides an explanation for how PsyCap operates to affect perceptions of stress. Specifically, our results show that adaptive and maladaptive coping styles differentially mediate the effects of PsyCap on perceived stress with the indirect effects of PsyCap on perceived stress through maladaptive coping being stronger than the indirect effects through adaptive coping. Moreover, the indirect effects through adaptive coping were not significant for individuals working from home. These results suggest that PsyCap's beneficial effects in reducing perceived stress work primarily by reducing the tendency to engage in maladaptive coping rather than increasing the tendency to engage in adaptive coping, particularly for people working at home during the COVID-19 crisis. Third, our results shed light on the potential role of PsyCap for facilitating effective coping styles and lowering perceived stress in the specific context of the lockdowns and quarantines associated with COVID-19 pandemic. The positive psychological resources of PsyCap may be especially useful in buffering against the anxiety and stress of extreme crisis situations.

Our results also have important implications for health policy and practice in organizations. Research has shown that maladaptive coping is related to negative physical and mental health outcomes (e.g., Fledderus et al., 2010; Holton et al., 2016). We found that PsyCap may be especially helpful in reducing maladaptive coping in employees, both for those working from home and those working outside the home. Importantly, all four dimensions of PsyCap are amenable to change and development (e.g., Bandura, 1997; Masten & Reed, 2002; Seligman, 1998; Snyder, 2000). Consequently, while organizations tend to focus on health interventions directly targeting stress reduction, both generally (e.g., Eschleman & LaHuis, 2014) and in the specific context of the COVID-19 pandemic (e.g., Taylor, 2020), our findings suggest that health interventions aimed at increasing PsyCap may be an effective means of reducing maladaptive coping and perceived stress, particularly in a crisis context such as that generated by the pandemic lockdowns and quarantines. Indeed, studies have shown that overall PsyCap can be developed in employees with brief training interventions (Luthans et al., 2008; Luthans et al., 2010). Finally, our results imply that increases in PsyCap are likely to have the same beneficial effects on coping and stress for employees working from home and those working at a workplace.

In conclusion, the COVID-19 crisis and resulting lockdowns caught many people unprepared for new and sometimes disconcerting working environments, both at home and in the workplace. PsyCap may serve as an important positive psychological resource that can buffer against the negative health effects of stress and anxiety by facilitating more adaptive (health protective) and less maladaptive (health damaging) coping. Future research should continue to explore PsyCap as a potential tool for supporting health education and shaping positive health behaviors.

Full text, tables, figures, and references are available upon request.