

Wellbeing, Psychological Capital, and Coping of University Employees during the COVID-19 Pandemic

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Abstract: *We examined wellbeing in 540 university employees before and after the onset of COVID-19, along with the relationships between psychological capital (PsyCap), coping strategies, and wellbeing. Psychological capital and coping strategies predicted wellbeing, with coping strategies demonstrating a mediator effect. Hope and optimism had the largest variance on wellbeing after COVID-19, along with the coping strategies of positive reframing and active coping. The role of proactive interventions to address wellbeing among university employees is discussed.*

Keywords: university employees, psychological capital, wellbeing, coping strategies, COVID-19, higher education

Introduction

The year 2020 was one of unprecedented stress. The novel coronavirus, a highly contagious and debilitating disease named COVID-19, was declared a pandemic by the World Health Organization (WHO) in March 2020. The number of COVID-19 deaths surpassed 416,010 in the USA at the time of this writing (Centers for Disease Control and Prevention, n.d.), giving rise to the unrelenting stress throughout the population. In addition to COVID-19 pandemic, issues of racial inequality and injustice were prominent, with the murders of George Flyod, Ahmaud Arbery, and Breonna Taylor (Ruffin, 2020) fueling Black Lives Matter protests across the country. Universities were affected by the virus with school closures, and with abrupt transitions to online work and study. Faculty, staff, and administrators continued the work of universities via online platforms, with many simultaneously managing multiple non-work roles of partner, parent, and caregiver. At the same time, many universities in the USA were already facing financial challenges in 2020, and these along with social unrest, were further exacerbated by COVID-19 (Butrymowicz & D'Amato, 2020). With the pandemic continuing in 2021:

College administrators have the herculean task of determining the best way to move their campuses forward during uncharted times. They need to navigate protecting the health and safety of the campus and neighboring community while also advancing the educational

mission, the research enterprise, and financial stability of the institution. (Lederer et al., 2021, p. 17)

The sudden and unexpected changes to daily life at universities have challenged the personal and professional resources of faculty, staff, and administrators, resulting in heightened stress levels, and threats to wellbeing. Amid a backdrop of change, uncertainty, and stress, an emphasis on wellbeing is essential (Centers for Disease Control and Prevention, 2021). Wellbeing is defined as a state of being happy that encompasses positive emotions, engagement, relationships, meaning, and accomplishment (Seligman, 2011). Within higher education, leadership for wellbeing initiatives designed to help university communities regain their equilibrium is key. In an effort to better tailor programming to support wellbeing, we explored the relationships among wellbeing, psychological capital (PsyCap) and coping strategies for university employees. We examined the well-being of participants both at the time of data collection (after the onset of COVID-19) and by retrospective recall of participants prior to the onset of COVID-19. Our goal in doing so was to help inform wellbeing promotion initiatives for university employees to help them navigate these challenging times in their professional and personal lives.

Stressors within Higher Education

In the 2020-2021 academic year, the timing and extent of resuming in-person work and study at higher education institutions is uncertain, along with safety concerns for students, faculty, staff, administrators, families, and communities. Faculty and staff have been tasked to provide quality education and service despite the disruptions and risks resulting from the pandemic. Administrators have to consider the wellbeing of faculty and staff (Berbitsky & Ellis, 2018) while supporting the wellbeing of students and the greater community. For the purposes of this study, university employees comprised faculty, whose primary role is instructional; administrators, charged with managing the functioning of universities, including roles of student affairs and student services (e.g., admissions and financial aid); and staff, which included those working in clerical positions and service roles such as custodial and food services.

Although vaccines are now approved for use in the USA, there continues to be uncertainty about the supply of vaccines (Smith, 2021), casting doubt on when COVID-19 will be slowed or curtailed. Uncertainty about

when this threat might end affects wellbeing and the ability to cope. Fear, worry, and stress are normal responses to perceived or real threats, especially at times of uncertainty (WHO, 2020). Further, matters of injustice as well as social and political unrest during the prolonged time of the pandemic have contributed to high stress levels, and in some cases of great intensity manifestations of toxic stress (Garner et al., 2012). The pandemic, which has continued for several months, has the potential to impact physical health, mental health, and the ability to sustain wellbeing.

A further complication is the blurring of personal and professional boundaries (Pluut & Wonders, 2020). The professional world intersects with personal realities as the number of employees working from home substantially increased. Further, at a time when social support could help ease the rapid transition, people were asked to shelter in place and maintain social distance with others. All of these circumstances, when taken together, contribute to concerns for the wellbeing of university employees. The wellbeing of faculty, staff and administrators within higher education institutions is important to consider as these institutions strive to thrive in the midst of social unrest and a pandemic with no expiration date.

Stress

Evaluating the stress and wellbeing of faculty and staff at higher education institutions is not a novel concept. Researchers have described levels of stress as impacting overall job satisfaction and wellbeing (Barnes et al., 1998; Berbitsky & Ellis, 2018; Dugas et al., 2020; Schuster & Finkelstein, 2006). In a study with 400 tenure track faculty, Blix et al. (1994) reported participants experienced stress half the time, and identified stress-related health problems, lowered work productivity, and difficulty coping with stress as factors contributing to considering changing jobs. Similarly, Abouserie (1996) reported that stress negatively impacted job satisfaction among 414 university academic staff and described 74% as moderately stressed and 15% as extremely stressed. In a study of 178 Australian university faculty and staff, Gillespie et al. (2001) reported poor management practices, insufficient funding and resources, work overload, and lack of recognition and reward as major stressors impacting faculty job satisfaction. In dealing with these stressors, faculty reported less time spent on research and,

publishing, and declining expectations of students (Blix et al., 1994; Gillespie et al., 2001). The stress experienced by university employees can affect students and the quality of the educational experience provided (Williams et al., 2017). Faculty, staff, and administrators at higher education institutions are responsible for helping support and promote student wellbeing (Di Placito-De Rango, 2018; Ebenbach, 2017). Unfortunately, social unrest, spread of coronavirus, and the ongoing global pandemic has exacerbated the situation higher education institutions were facing prior to the pandemic. In order to ensure the success of institutions, Berbitsky and Ellis (2018) noted the importance of evaluating the stress experienced by faculty and staff and exploring how best to support employees in order to ensure the success of the institution.

In the context of COVID-19, the emerging literature suggests specific challenges across employee categories at universities. Instructional staff or faculty who had minimal or no online teaching experience needed to quickly learn new technologies and adapt them to courses that were ongoing (LeBlanc, 2020). Top level administrators were forced to make policy and resource decisions in the context of unknown variables--such as public health impact and risk, and longevity of the virus (Maloney & Kim, 2021). Other staff members were forced to learn to conduct their work, including student interactions, remotely and to communicate changes to students and colleagues in a period of nearly constant change (Maloney & Kim, 2021). Beyond work-related challenges, employee wellbeing must be considered.

Wellbeing

The elements of positive emotions, engagement, relationships, meaning, and accomplishments contribute to overall wellbeing and the ability of people to flourish despite stresses and challenges they are experiencing (Seligman, 2011). Wellbeing is determined through a combination of dispositional, situational, and intentional factors (Lyubomirsky, 2008). From the context of wellbeing theory, in times of crisis and uncertainty, it is important to understand the ability to maintain wellbeing, coping, and psychological capital as pathways to support university employees. This is relevant because university employees who are well are better able to support the wellbeing of students. To do this effectively,

employee wellbeing, coping, and psychological capital need to be further evaluated and areas for how to best provide support examined.

Evaluating Wellbeing. Wellbeing is best understood when explored through the framework developed by Seligman (2011). Seligman identified five building blocks of wellbeing: positive emotions, engagement, relationships, meaning, and accomplishment (denoted commonly by the acronym PERMA). This wellbeing model combines components of both hedonia and eudaimonia. Seligman suggested each of the five distinct elements are intrinsically rewarding and when combined together result in human flourishing. Butler and Kern (2016) define “flourishing” as a “dynamic optimal state of psychosocial functioning” across all the five psychosocial wellbeing domains (p. 2). Each PERMA element significantly relates to physical health/vitality, life satisfaction, job satisfaction, and organization commitment of employees (Seligman, 2011). Positive psychology interventions focusing on each of the PERMA elements increases wellbeing, thus suggesting causal relationships between the pursuit of PERMA and wellbeing (Gander et al., 2016). The PERMA framework of wellbeing has been evaluated and applied to education and various work-related settings (Johnston et al., 2013; Martínez-Martí & Ruch, 2017; Norrish et al., 2013; Slavin et al., 2012).

Evaluating Coping. Along with exploring wellbeing, it is important to also consider coping. Coping is commonly referred to as cognitive and behavioral efforts made to master, tolerate, or reduce external and internal demands regardless of the success of these efforts (Lazarus & Folkman, 1984). Coping strategies are classified broadly as active or adaptive coping, meaning they improve functioning and wellbeing, or as passive or maladaptive coping, which decreases functioning and wellbeing as a result of increased stress (Zeidner & Saklofske, 1996). Adaptive coping strategies have also been conceptualized as healthy and engaged strategies (Carver & Connor-Smith, 2010). Such adaptive strategies predicted better adjustment over time and may be further viewed as problem-focused or emotion-focused (Austenfeld & Stanton 2004; Lazarus & Folkman, 1984). On the other hand, maladaptive coping strategies have also been referred to as unhealthy, disengaged, or avoidance strategies. Individuals employ different coping strategies with differing contexts as they are more

situation-dependent (Carver & Connor-Smith, 2010). Additionally, Lazarus (2003) suggested personal resources such as self-efficacy, optimism, hope, and resiliency that individuals bring to transactions within their environment helps in shaping appraisals and hence in coping with stress. Therefore, with appropriate utilization of resources available to individuals, coping strategies may be enhanced to assist with sustaining wellbeing (Lazarus & Folkman, 1984).

Evaluating Psychological Capital (PsyCap). PsyCap also plays a role in supporting wellbeing. PsyCap is an individual's positive psychological state of development that is characterized by: "(1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success." (Luthans et al., 2007, p. 3). As PsyCap falls into the middle ground of the trait–state continuum, it can change in response to life situations and intentional human resource development interventions (Luthans et al., 2007). At work, PsyCap is reportedly amenable to development and change through short training programs (Luthans et al., 2010).

PsyCap is relevant to both global and domain-specific life appraisals (Luthans & Youssef-Morgan, 2017). Researchers have reported that PsyCap and its four constituent facets are related to employee attitudes, behaviors, and performance in the workplace (Avey et al., 2011; Luthans et al., 2010). Additionally, numerous studies have established that PsyCap supports wellbeing (Avey et al., 2011; Culbertson et al., 2010) by enabling positive appraisals of circumstances at work and by preventing negativity (Youssef-Morgan & Luthans, 2015). PsyCap has also been shown to augment positive psychological outcomes by acting as a buffer against stressors that bring negative outcomes (Rabenu et al., 2017; Riolli et al., 2012).

In an effort to gain an understanding of how to best support employees in higher education institutions, especially during this unique time of crisis and ongoing global pandemic, we examined the wellbeing, coping practices, and PsyCap of university faculty, staff, and administrators. Our

overarching goals were to focus on the strengths of university employees and understand how and what assists faculty and staff maintain their wellbeing. In this way, we support the mission of higher education institutions to support the learning and growth of students in an environment that promotes flourishing and obtaining knowledge. We hoped to better understand how to help and support higher education professionals and staff during and through the COVID-19 pandemic.

Purpose of the Study and Research Questions

The purpose of the study was to examine the relationships among wellbeing in university employees with psychological capital (PsyCap) and coping strategies. Participants responded to the wellbeing survey with their assessment of wellbeing at the time of data collection (after COVID-19) and with their perceptions of wellbeing prior to the pandemic (before COVID-19). The following research questions guided our work:

1. Do self-reported measures of PERMA differ significantly after the onset of COVID-19 compared to before COVID-19?
2. To what extent can the change in PERMA before and during COVID-19 be accounted for by PsyCap?
3. To what extent can we predict the change in PERMA from coping strategies employed by university employees during COVID-19?
4. What role do coping strategies have on the PsyCap and PERMA of participants after the onset of COVID-19?

Method

Participants

A total of 617 university employees from public and private institutions in the U.S participated in the study. After cleaning the data, 77 surveys were excluded from the data analyses. The final sample consisted of 540 participants, with 30% female, 68% male, and 2% non-binary. The age of participants ranged from 22 to 76 ($M = 47.40$, $SD = 12.07$). Race and ethnicity self-identified by participants were Caucasian ($n = 480$, 89%), African American/Black ($n = 17$, 3%), Hispanic/Latinx ($n = 18$, 3%),

Asian/Asian American ($n = 19$, 4%), and other ($n = 7$, 1%). Among the participants were faculty ($n = 220$, 41%), staff ($n = 213$, 39%), and administrators ($n = 107$, 20%); 123 (23%) tenure track faculty and 87 (16%) non-tenure or adjunct faculty participated in the study. The majority of the sample were full time employees ($n = 491$, 91%) compared to part time employees ($n = 49$, 9%). Eighty-two percent of the employees reported being in some type of relationship ($n = 441$) and the remaining 17% were either single or not in an active relationship status ($n = 91$).

Instruments

PERMA-Profiler. The PERMA-Profiler (Butler & Kern, 2016) was developed to measure Seligman's (2011) PERMA elements of wellbeing: (P)ositive emotions ($\alpha = 0.88$), (E)ngagement ($\alpha = .72$), (R)elationships ($\alpha = 0.82$), (M)eaning ($\alpha = 0.90$), and (A)ccomplishment ($\alpha = 0.79$). The PERMA-Profiler consists of 23 items where 15 items are used to measure the five PERMA elements and the additional 8 items measure negative emotions, physical health, and loneliness. Each item is rated on an 11-point scale ranging from 0 (never) to 10 (always), or 0 (not at all) to 10 (completely). The reliability, test-retest stability, and construct validity of its subscales are high (Butler & Kern, 2016). In the present study, alpha coefficients of the factors are high ($\alpha > .7$) except for the factor of engagement ($\alpha = .66$).

Psychological Capital Questionnaire – Short Version (PCQ-12). PCQ-12 (Avey et al., 2011) is a brief version of the established Psychological Capital Questionnaire (PCQ) developed by Luthans et al. (2007). Items were scored on a 6-point Likert scale from “strongly disagree” (1) to “strongly agree” (6), and were averaged together to represent the individual's level of PsyCap (12 items, Cronbach's α for hope = .79, self-efficacy $\alpha = .82$, resilience $\alpha = .62$, & optimism $\alpha = .69$).

Brief Coping Orientations to Problems Experienced Questionnaire (Brief COPE). The 28-item Brief-COPE developed by Carver (1997) is a multidimensional assessment based on the COPE inventory (Carver et al., 1989). The Brief-COPE is frequently used for assessing coping in health-related studies (Cooper et al., 2008; Eisenbarth, 2012). Brief-COPE measures 14 conceptually differentiable coping strategies: (1) Active coping; (2) self-distraction; (3) using

instrumental support; (4) planning; (5) using emotional support; (6) positive reframing; (7) humor; (8) religion; (9) acceptance; (10) denial; (11) venting; (12) substance use; (13) self-blame; and (14) behavioral disengagement. A four-point scale ranging from “Usually I do not do this at all” to “Usually I do this a lot” is used to record responses. Reliability coefficients (α) of the scale typically range from .54 to .90.

Data Collection and Analysis Procedures

After receiving Institutional Review Board approval, data were collected via Qualtrics by sending emails to university employees at two large public universities and by disseminating the call for participants on professional listservs and social media outlets. Data collection took place during early May to early June, 2020. Participants were asked to complete the PERMA-Profiler twice – recalling their wellbeing before the onset of COVID-19 and responding about wellbeing at the time of data collection (after the onset of COVID-19). PsyCap and coping strategies were self-reported at the time of data collection. Data were analyzed using Statistical Package for the Social Sciences (SPSS, v.25) and Analysis of Moment Structures (AMOS, v.23). To compare the scores of PERMA before and during COVID-19, repeated measures ANOVA with Wilk’s Lambda (λ) as a measure of multivariate statistic and partial eta-squared (η^2) as a measure of effect size were used. Scores of PERMA-Profiler subscales before the pandemic were subtracted from scores after the onset of COVID-19 to calculate change in PERMA scores. Covariance of these PERMA change scores with PsyCap factors and coping strategies were tested with Pearson Product Moment Correlation. Multivariate multiple regression was carried out to understand the predictive role of PsyCap factors on PERMA under two conditions (before COVID-19 and after the onset of COVID-19). Indirect effects analysis (mediation analysis) with bootstrapping and 95% confidence interval were used to test the mediating role of coping strategies on the relationship between PsyCap and change in PERMA scores.

Results

Difference in Perceptions of Wellbeing Currently and Before the Onset of COVID-19

A summary of repeated measures ANOVA (see Figure 1) indicates that participants self-assessed that PERMA elements of wellbeing decreased significantly following the onset of the pandemic. Similarly, negative emotions and loneliness increased compared to before the onset of COVID-19. The most severely affected factors were positive emotions and negative emotions, $\eta^2 = .329, .377$ respectively. Relationships (.058) were the least affected element of wellbeing when comparing perceptions currently versus before the pandemic. Together, the percentage of change in PERMA for all participants (8 factors) was 41.6%, $\lambda = .584, F(8,532)=4.34, p < .01; \eta^2 = .416$. Further, we explored whether there were differences in wellbeing between faculty, staff, and administrators groups. Interaction effect of the period (Before COVID & During COVID) and position in the university (Faculty, Staff, & Administrators) on dimensions of wellbeing were insignificant, indicating homogeneity in the change in wellbeing among the groups, $F(2,537) = .040, .368, 1.608, 2.292, .236, 2.55, .665, 2.45, p > .05$.

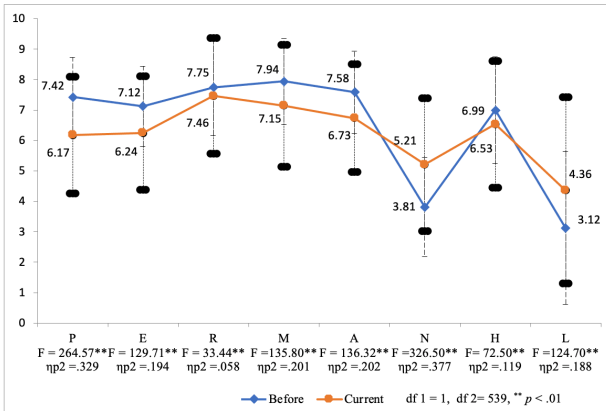


Figure 1. Comparing PERMA Well-being Before and During COVID-19 Note. P = positive emotion, E = engagement, R = relationships, M = meaning, A = accomplishment, N = negative emotion, H = physical health, L=loneliness.

PsyCap as the Predictor of Wellbeing

Results of multivariate multiple regression presented in Table 1 indicate that optimism was the most important and consistent predictor of PERMA. Self-efficacy predicted positive relationships. There were differences in which specific PERMA elements were important predictors before COVID-19 and after COVID-19. Resilience predicted meaning, accomplishment, and negative emotions before COVID-19. However, during COVID-19, hope and optimism became the most important and consistent predictors of all wellbeing elements. While considering coefficient of determination before COVID-19, PsyCap explained 20% of the variance of the PERMA parameter ($R^2 = .20, p < .01$). However, during the pandemic, covariance of PsyCap was 42% ($R^2 = .42, p < .01$). Specifically, during the pandemic, self-efficacy and resilience became irrelevant factors to predict PERMA.

Table 1. Predicting PERMA from Psychological Capital (PsyCap)

PERMA	β				Adj. R ²	F
	Efficacy	Hope	Resilience	Optimism		
<i>Before COVID19</i>						
Positive Emotions	-.02	.06	.04	.43**	.21	37.41**
Engagement	-.03	.07	.09	.17*	.06	9.35**
Relationships	.14**	.02	.02	.24**	.11	16.86**
Meaning	.03	.09	.12**	.32**	.19	33.16**
Accomplishment	-.02	.08	.16**	.22**	.12	19.04**
Negative Emotions	.03	-.02	-.14**	-.29**	.11	21.61**
Health	-.03	.10	-.01	.26**	.09	13.75**
Loneliness	-.02	-.07	-.04	-.17**	.05	7.73**
Well-being	.03	.07	.10*	.35**	.20	35.49**
<i>During COVID19</i>						
Positive Emotions	-.03	.23**	.03	.46**	.36	76.97**
Engagement	.01	.31**	.03	.22**	.22	39.95**
Relationships	.12*	.14**	.02	.25**	.17	28.66**
Meaning	.07	.28**	.02	.35**	.35	71.95**
Accomplishment	-.06	.41**	.06	.30**	.36	78.08**
Negative Emotions	.00	-.15**	-.07	-.34**	.21	36.69**
Health	-.02	.24**	-.01	.26**	.16	27.23**
Loneliness	.05	-.19**	-.09	-.20**	.12	19.57**
Well-being	.03	.32**	.04	.39**	.42	95.77**

** $p < .01$, * $p < .05$

Coping as the Predictor of Wellbeing

Changes in PERMA were correlated with coping strategies used by university employee participants. A summary of correlation analysis indicates that strategies of self-distraction, denial, substance use, behavioral disengagement, venting and self-blame were negatively correlated to change in positive emotions ($-.21 < r < -.39$, $p < .01$), engagement ($-.17 < r < -.36$, $p < .01$), relationships ($-.13 < r < -.34$, $p < .01$, $r = -.10$, $p < .05$), meaning ($-.16 < r < -.41$, $p < .01$), accomplishment ($-.18 < r < -.39$, $p < .01$) and health ($-.12 < r < -.29$, $p < .01$); and positively related to change in negative emotions ($.16 < r < .39$, $p < .01$) and loneliness ($.11 < r < .30$, $p < .01$). Positive reframing did not significantly relate to loneliness. Emotional support was positively related to relationships ($r = .188$, $p < .01$), but substance use and relationships were not significantly related. Active coping, positive reframing and acceptance were positively related to change in positive emotions ($.13 < r < .22$, $p < .01$), engagement ($.16 < r < .18$, $p < .01$), relationships ($.19 < r < .23$, $p < .01$), meaning ($.16 < r < .21$, $p < .01$), accomplishment ($.13 < r < .18$, $p < .01$) and health ($.14 < r < .15$, $p < .01$).

.01); and negatively related to change in negative emotions ($r = -.12, -.14, p < .01$) and loneliness ($r = -.11, -.09, p < .05$). Likewise, change in negative emotions was positively related to planning ($r = .13, p < .01$) but its relationship with active coping was insignificant. Religion as a coping strategy was found to be positively related to change in engagement scores ($r = .09, p < .05$).

Multivariate regression analysis was performed to predict change in PERMA from coping strategies which were determined to be significant correlates based on the correlation analysis. Results of regression analyses indicated that positive reframing was the most important and consistent healthy coping strategy to predict change in PERMA elements except for accomplishment (see Table 2). Active coping strategy was the second important healthy strategy that predicted the change in scores of accomplishment and loneliness. Emotional support was a significant predictor of change in relationship scores. On the other hand, behavioral disengagement and self-blame were the most unhealthy and consistent predictors of change in PERMA (see Table 2). Self-distraction and denial were the next relevant avoidant coping strategies to predict change in positive emotions and meaning. Denial also predicted changes in engagement and negative emotions. Similarly, substance abuse predicted reduction in the scores of engagement and venting was found to be a predictor of positive emotions.

Table 2. Predicting Change in PERMA from Coping Strategies

Coping Strategies	β										Wellbeing
	P	E	R	M	A	N	H	L			
Self-distraction	-.14**	-.05	-.06	-.12**	-.08	.08	-.02	.11*	-.11**		-.11**
Active coping	.03	.09	.06	.09*	.14**	-	.05	-.11**	.09*		.09*
Denial	-.09*	-.11*	-.07	-.10*	-.07	.09*	-.05	.08	-.11**		-.11**
Substance use	-.06	-.11**	-	-.02	-.03	.03	-.06	.01	-.04		-.04
Use instrumental support	-.02	-.05	-	-.22**	-.12**	-.02	-	.15**	-.01		-.01
Behavioral disengagement	-.18**	-.15**	-.16**	-	-.16**	.26**	-.13**	.17**	-.22**		-.22**
Venting	-.10*	-.02	-.06	-.04	-.02	.09	-.05	-.05	-.06		-.06
Positive reframing	.19**	.12**	.09*	.09*	.08	-.14**	.10*	.15**	.15**		.15**
Acceptance	.01	-.04	.06	.03	-.01	-.02	.01	.04	.01		.01
Self-blame	-.14**	-.21**	-.16**	-.16**	-.23**	.06	-.18**	.12*	-.22**		-.22**
Religion	-	.02	-	-	-	-	-	-	-		-
Emotional support	-	-	.17**	-	-	.08	-	-	-		-
Planning	-	-	-	-	-	.11*	-	-	-		-
	<i>Adj. R²</i>	.25	.21	.19	.23	.22	.21	.13	.13		.31
	<i>F</i>	19.00**	14.29**	15.45**	19.18**	16.34**	13.77**	9.72**	10.07**		25.70**

** $p < .01$, * $p < .05$

Note. Coping strategies with insignificant correlations were excluded from the regression models. P = positive emotion, E = engagement, R = relationships, M = meaning, A = accomplishment, N = negative emotion, H = physical health, L = loneliness.

Role of Coping on PsyCap and PERMA

The mediating role of coping strategies was tested using Structural Equation Modeling (SEM, see Table 3). Relevant predictor coping strategies of PERMA were considered as the mediating variables. Results indicated that optimism and hope had significant indirect effects on the change in PERMA through coping strategies. Coping strategies were found to mediate the relationship of resilience with loneliness and accomplishment. Further, detailed analysis indicated that self-blame was the consistent mediating coping strategy on the relationship of optimism ($\beta = -.04, .05, -.05, .06, .06, .04, .06, .06, p < .01$), hope ($\beta = -.03, .03, -.03, .04, .04, .03, .04, .03, p < .05$), resilience ($\beta = -.06, .07, -.07, .09, .08, .07, .08, .08, p < .01$) and change in PERMA. Similarly, behavioral disengagement mediated the relationship between optimism ($\beta = -.06, .06, -.07, .07, .08, .06, .07, .07, p < .01$), hope ($\beta = -.04, .04, -.05, .05, .06, .05, .05, .05, p < .05$) and change in PERMA. Other coping strategies which mediated the relationship between optimism and change in PERMA scores were self-distraction ($\beta = -.03, .02, -.03, .03, .03, .02, .02, .04, p < .01$) and positive reframing, $\beta = .03, -.03, .03, .04, .05, .04, .05, p < .01$; the mediating role of self-distraction on the relationship between optimism and loneliness was insignificant, $\beta = -.01, p > .05$. The mediating role of active coping strategies on the relationship between hope and PERMA change except negative emotions ($\beta = -.01, p > .05$) was also significant, $\beta = -.02, .02, p < .05, \beta = .02, .03, .03, .03, p < .01$.

Table 3. *Mediating Role of Coping Strategies on the Relationship between Psychological Capital (PsyCap) and PERMA Change*

PERMA Change	β			
	Optimism	Resilience	Hope	Efficacy
Positive Emotions	.18**	.04	.10**	.01
Engagement	.14**	.04	.12**	.01
Relationships	.10**	.02	.10**	.04
Meaning	.15**	.03	.11**	.03
Accomplishment	.14**	.05*	.11**	.01
Negative Emotions	-.16**	-.04	-.07*	-.01
Health	.12**	.03	.09**	.01
Loneliness	-.08*	-.04*	-.08**	-.01

** $p < .01$, * $p < .05$

Discussion

Consistent with projections that COVID-19 would negatively affect mental health (Wan, 2020), participants of this study reported both a statistically significant increase in negative emotions and a significant decrease in their experiences with positive emotions. While most studies of mental health have focused solely on incidence of negative emotions (Seligman, 2011), the results of this study demonstrate that examining positive emotional experience can provide valuable information for improving individuals' mental health. The finding that positive emotional experience is a key indicator of wellbeing is consistent with positive psychological studies as described by Lyubomirsky (2008). In an meta-analysis of research on factors affecting wellbeing, Lyubomirsky found that it was positively related to life satisfaction, resilience, mindfulness, social rewards, work outcomes, and physical health.

In this study, the predictive role of PsyCap on wellbeing substantially increased after the onset of COVID-19 compared to participants'

assessment of before COVID-19. Among the most interesting findings is the differential influence of particular facets of PsyCap prior to and following the onset of COVID-19. After COVID-19, hope was found to be a strong predictor of wellbeing during COVID-19, but was not salient before the onset of COVID-19. Prior to the onset of COVID-19, optimism, efficacy and resilience were the strongest predictors of wellbeing. However, following the onset of the pandemic, efficacy and resilience were not significant predictors; and hope moved alongside optimism as a significant predictor. The notion that resilience—which relates to one’s ability to bounce back from challenges—is not a predictor is somewhat surprising. However, this could be due to the fact that data were collected in the early phase of the pandemic when there were many unknowns, with no viable vaccine available. Hope and optimism, which are based on how people narrate or make meaning of current events and orient toward the future, were the most powerful predictors of wellbeing. Self-efficacy may have lost relevance during the pandemic as participants may have experienced the situation as being beyond their personal control. Another aspect that may have impacted self-efficacy is the continued social unrest that occurred during the data collection. Two aspects to consider as we make meaning of the results are positive orientation to the future and relationships.

Positive Orientation to the Future

Optimism pertains to the attribution one gives to past and present events, and has a bearing on how one acts in the future (Seligman, 2006). Hope refers to one’s motivation to persevere, and one’s ability to find and pursue new approaches to goals (Snyder, 1994). The findings of this study and the relevance of these two characteristics to wellbeing are resonant with the reality that uncertainty about the future is a primary concern during the pandemic among people worldwide, and certainly within higher education (Mair, 2020; Mahmoud et al., 2020). More generally, it is consistent with previous findings of the strong connections between PsyCap and wellbeing (Avey et al., 2011; Culbertson et al., 2010; Rabenu et al., 2017; Selvaraj & Bhat, 2018; Youssef-Morgan & Luthans, 2015). Optimism and hope are the two most crucial PsyCap elements contributing to participants’ wellbeing during the pandemic. Therefore, specific PsyCap development and positive psychology interventions (PPI) to build optimism and hope may be

particularly relevant to include in wellbeing initiatives during times of crisis.

We also examined the relationship between coping behaviors, PsyCap, and wellbeing. In the particular cases of optimism and hope, it is noteworthy that two of the most effective coping strategies were reflective of these two most relevant PsyCap characteristics. Previous studies have shown that individuals with higher levels of optimism used different coping strategies than did those with higher levels of pessimism, and this aided in explaining the positive association between optimism and better adjustment (Carver & Scheier, 1999; Carver et al., 1989; Stanton & Snider, 1993). The most powerful coping strategy affecting wellbeing in this study was positive reframing, which is consistent with the PsyCap characteristic of optimism. Seligman (2006) described optimism as a positive attributional style—in other words, an approach to positively framing events, even those that represent shortcomings, challenges and obstacles. Importantly, Seligman asserted that optimism is a learned characteristic, one that can be shaped through intentional reframing. The strategy of positively framing events can be seen as generative in the sense that the act of positive attribution can shape one's wellbeing (Baker, 2004). In contrast to positive reframing, self-blame was one of the most negative mediators, or contributors to wellbeing.

Active coping was one of the strongest adaptive strategies, and is aligned with the PsyCap characteristic, hope. One of the key features of hope is one's sense of agency in moving toward a positive future (Snyder, 1994). Similarly, active coping is about taking action to adapt to new circumstances. In contrast, behavioral disengagement, one of the strongest negative mediators in this study, is in opposition to the active coping approach and to the characteristic of hope. These findings are consistent with previous research (Austenfeld & Stanton, 2004; Rabenu et al., 2017).

Relationships

Seligman (2011) wrote, “Other people are the best antidote to the downs of life and the single most reliable up” (p. 20). With respect to the changes in PERMA elements of wellbeing after the onset of COVID-19, we found that the relationship domain was the least negatively impacted

aspect of participants' lives. This finding was somewhat surprising given prior research on the negative impact of the coronavirus on relationship quality (Pieh et al., 2020). Positive psychology research establishes the pivotal role of social connectedness and positive relationships as foundational to wellbeing (Algoe et al., 2010; Reis & Gable, 2003; Seligman, 2011). Although the relationship dimension of the PERMA test was not an indicator of wellbeing, it should be noted that the relational strategy of exercising emotional support was effective in promoting wellbeing among the participants. So, along with positively approaching the future, intentionally seeking ways to support others during this particularly stressful time in human history continues to be an adaptive strategy to promote wellbeing.

Implications for Higher Education

Based on the findings, we offer the following suggestions for higher education administrators, including campus leaders, unit heads, human resource and employee assistance program personnel and campus counseling professionals to support the wellbeing of university employees: (a) encourage individuals and groups to self-assess their wellbeing, PsyCap, and coping strategies to attain greater levels of self-awareness; (b) offer workshops to help university employees understand the personal agency they have in their choice of coping strategies and to understand how these might affect wellbeing; for example, provide information on positive coping strategies that are linked to higher levels of optimism in the study such as positive reframing and active engagement (c) conduct PsyCap development training programs where hope, self-efficacy, resilience, and optimism (HERO) can be nurtured and grown with the goal of enhancing wellbeing; in particular, given the importance of hope and optimism during the pandemic, offer readings and exercises to build these psychological assets; (d) partner with university offices and entities in order to tailor training to the needs of specific sub-groups-for example, with the provost's office for faculty outreach, with the division of student affairs for training of residence life staff, or with facilities management to provide workshops for food service workers, maintenance workers, and custodians; (e) gather and analyze data to demonstrate the efficacy of interventions and to inform continuous development; and (f) continue to conduct research on wellbeing and flourishing among university employees..

It should be noted that the recommendations above can be helpful, not only during COVID-19, but at other times as well. The findings demonstrate that promoting personal agency (letter b) and paying particular attention to hope and optimism (letter c) can be especially helpful during the pandemic. In addition, the study demonstrated that it is possible for individuals to flourish during the pandemic. Consistent with the precepts of Positive Psychology, aiming for and studying correlates of high human functioning, even when challenges are immense, should not be overlooked in practice and research.

Employee wellbeing is crucial due to its links to performance, satisfaction, engagement and turnover. Studies on wellbeing initiatives may prove to be helpful for demonstrating return on investment for employee wellbeing enhancement programs. With the understanding of the factors that move a person closer to flourishing, programming could incorporate strength-based employee development interventions. The findings of the current study underscore the importance of university employee wellbeing and point to the need for timely support for university employees. We hope that this research adds to what is fast becoming an upward spiral of research aiming to improve the quality of life and employee wellbeing from a positive psychological and strengths-based leadership perspective during the current pandemic and beyond.

Limitations and Suggestions for Future Research

Limitations of the current study are outlined below. We encourage future researchers to address these in their work. Limitations of the current study include the use of self-report measures and the use of retrospective recall for the pre-COVID-19 condition. Further, we did not assess health concerns or adverse childhood experiences of participants, nor inquire about distress from the social unrest, which have the ability to impact the ability to manage stress and wellbeing. Participants in the study were faculty, staff, and administrators, which limits generalizability to any one specific sub-group within higher education, and no significant differences were present when these sub-groups were compared. Racial diversity among participants was limited. Without higher numbers of black, indigenous, people of color (BIPOC) in the sample, it was not possible to explore how the COVID-19 pandemic affected the wellbeing of BIPOC university employees. In our study, we did not explore if participants were working on-campus or remotely at the time of data

collection. We did not consider the ramifications of financial situations, job-layoffs, and the economic downturn both at the personal and university-level.

Conclusion

The current research contributes to the existing body of knowledge on the direct links between PsyCap and wellbeing, as well as on the mediating role of coping strategies during the most serious pandemic in modern times. Based on the current study and previous research, focusing on how best to support university employees in maintaining their wellbeing and flourishing at work is needed to help employees cope with the stressors of the pandemic while also assisting higher educational institutions to thrive. Advocates and leaders in higher education can be instrumental in designing research and programming that not only fosters the wellbeing of faculty, staff, and administrators, but also the wellbeing of the students whom we teach and support.

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