Article

Sustaining Workforce Engagement: From Mindfulness to Psychological Flourishing

Connie Zheng [1],* and **Asanka Gunasekara** [2]

1 University of South Australia, Centre for Workplace Excellence, Adelaide, SA 5000, Australia
2 School of Business, Law, and Entrepreneurship, Swinburne University of Technology, Hawthorn, VIC 3122, Australia
* Correspondence: connie.zheng@unisa.edu.au

Abstract: (1) Background: Practising mindfulness has been suggested in several recent media reports to help employees reduce stress in their effort to balance work and life pressures, especially during the pandemic when they have to work from home. During COVID-19, organisations have also struggled to effectively engage, retain and sustain employees when managing their work remotely. It is uncertain whether there is a close link between mindfulness and sustained workforce engagement. Although data were collected prior to COVID-19, this study contributes to adding new knowledge to this line of research by investigating how the flow-on effect of being mindful and psychological flourishing helps create positive effects on workforce engagement. (2) Methods: Path analysis was run to test the hypothesised relationships among key constructs with a sample of 229 participants. Direct and indirect effects were further tested with organisational mindfulness training program. (3) Results: The findings show that positive emotions gained from being mindful and maintaining a high level of psychological flourishing enhance workforce engagement. Organisational mindfulness training programs moderated the mediating effect of psychological flourishing on the relationship between mindfulness and workforce engagement, in which the indirect effect of mindfulness on workforce engagement via psychological flourishing is stronger when employees participated in mindfulness exercises and training programs. (4) Conclusions: Positive emotions attained from being mindful and experiencing psychological flourishing help sustain workforce engagement. (5) Implication: In order to sustain an engaged workforce, organisations need to implement effective mindfulness training programs that help the workforce broaden and build their personal resources via psychological flourishing and positive emotions, especially in times of facing difficult circumstances and managing uncertainty in challenging circumstances.

Keywords: positive emotions; mindfulness; psychological flourishing; workforce engagement; positive psychology

1. Introduction

In pre-COVID 19 times, many organisations and individuals have already been aware of the benefits of exercising to be mindful and participating in mindful training programs in support of enhancing employee's health and well-being [1,2]. However, with the extensive lockdown in the midst of COVID-19, and likely increased adaption of work-from-home (WFH) arrangements by organisations, it is ambiguous whether practicing mindfulness individually and participating in mindfulness training programs organised by workplaces can assist employees in their effort to balance work–life and reduces stress arising from extensive WFH setting, whilst accommodating the needs to look after children and care for elderly family members at home, especially for women. Moreover, WFH arrangements may have eroded the physical work environment designed to facilitate social interactions and increase a sense of isolation by employees, which affects work engagement at the organisational level [3].

Although a body of work investigating the relationship between mindfulness and work engagement has emerged in recent years [4–6], little is known about the underlying factors that may interact with the mindfulness and workforce engagement relationship. It is believed that for mindfulness to be effective in the workplace, individual employees need to channel their mindfulness into generating positive emotions and resources that can be utilised to create a high level of work engagement [5–8]. Therefore, the emerging research examining the relationship between mindfulness and employee engagement focuses on exploring the underlying factors that may indirectly influence workforce engagement.

The broaden-and-build theory of positive emotions, developed by Fredrickson [9], defines psychological flourishing as a state of optimal mental health of individuals who feel good, not only about themselves but also about their potential to contribute to the world around them in positive ways [10]. Past research has revealed that an increased level of positive emotions can help ease stress levels and enhance employee engagement [5,11,12]. However, how positive emotions derived from the psychological flourishing of employees impact workforce engagement is less clear. Thus, the current study is aimed to explore the mediating effect of psychological flourishing on the relationship between mindfulness practices and work engagement.

Based on the principles of positive psychology, it is argued that experiences of positive emotions broaden an individual's momentary thought–action repertoires, which in turn serve to build their enduring personal resources [9]. Day-to-day positive emotions were predicted by 'the interactive roles of dispositional mindfulness and perceived ability to savor the moment' (p. 1280) to reduce stress and promote psychological health [13]. Therefore, it appears that mindfulness has a role to play in generating positive emotions for individuals and employees alike, leading them to have both life and job satisfaction, even when facing particularly challenging times [3,14,15].

Mindfulness, defined as 'a way of orienting one's self to the present moment' appears to create day-to-day positive moments whereby one could maintain attention, awareness and acceptance of one's immediate experience without an attitude of judgement [16,17]. However, how mindfulness could relate to psychological flourishing in the work context is not clear.

Situating in the tenets within the broaden-and-build theory of positive emotions, it is argued that psychological flourishing defined as a state of feeling optimal well-being, could also contribute to positive emotions [9]. Psychological flourishing serves as the marker of people's living moments 'characterised by joy, interest, contentment, love and the like', as opposed to those 'moments plagued by negative emotions such as anxiety, sadness, anger and despair' [9] (p. 218). It is anticipated that during the COVID-19 lockdown period, while employees needed to work from home, the level of anxiety, sadness, and feeling of despair would increase. Yet, being able to live in the moments of choosing to be joyful with contentment and the feeling of being loved would help enhance individuals' psychological well-being and happiness [3].

Prior studies [5,18–20] generally reach a consensus that there is a limited variance in explaining the direct effects of mindfulness on work engagement, which is defined as employees having 'a positive, fulfilling work-related mindset' [20] (p. 74). It is argued that engaged employees experience a persistent sense of positive energy and enthusiasm, which allows them to fully immerse themselves in work activities [19,20]. However, neither is clear whether more engaged employees are steered by their positive emotions derived from accentuated mindfulness exercises or by their experiences of psychological flourishing. Thus, this study was designed to address the key research question as follows:

Does mindfulness help enhance psychological flourishing, which promotes employees' work engagement? If yes, how and why?

2. Literature Review and Hypothesis Development

Prior empirical studies investigated some underlying factors that affect the relationship between mindfulness and work engagement. For instance, Leroy et al. explored the variable

of authentic functioning (measured by being true to oneself and acting on one's belief in the work setting) in mediating the relationship between mindfulness and work engagement [4]. Malinowski and Lim used psychological capital (measured by hope, optimism, resilience and self-efficacy–to some extent similar to psychological flourishing) as a mediator to test the mindfulness–work engagement relationship [5]. The findings of these studies show a potentially stronger effect of mindfulness generated via self-authentic functioning on work engagement [4] and from the possession of individual psychological capital, such as stronger hope and optimism as personal resources [9]. These positive outlooks and attitudes are also essential for people to cope with uncertainty during the COVID-19 time.

As work engagement involves an individual effort to engage in work in the organisational setting, it is important to exploit both personal resources (e.g., being mindful) and organisational resources (e.g., provision of mindfulness training) as predictors of work engagement [18]. These resources are particularly necessary when the tendency to WFH is on the rise post-COVID-19.

Based on the broaden-and-build theory [9], for mindfulness to be effective in the workplace, individual employees need to channel the quality of mindfulness into generating positive emotions that can be used for better work engagement, especially during crisis time [5,21,22]. We believe that psychological flourishing that combines individual dispositions and social relationships at work may contribute not only to the happiness and well-being of others [23] but also feeling self-competent and capable of engaging in workplace activities even if employees are required to work in isolation [24]. The use of a broader phenomenon like psychological flourishing as a mediator could advance the theoretical understanding of factors that may indirectly affect the mindfulness–work engagement relationship. We, therefore, review the relevant studies in the literature below to develop hypotheses to guide the testing of these intricate relationships between mindfulness, psychological flourishing and workforce engagement.

As the Proverbs say, a happy face comes from a glad and content heart (Proverbs 15:13). People in life or employees at work who are content and happy are typically those with positive thinking and a hopeful outlook for the future. The view is closely in line with the principles of positive psychology that correspond with the well-known PERMA model (Positive emotions; Engagement; Relationships; Meaning; and Accomplishments) developed by the Father of Positive Psychology, Martin Seligman [25–27]. Having positive emotions is the first step to experiencing gratitude about the past, contentment in the present and optimism for the future [25,28]. These positive emotions are critical for employees to cope with uncertainty and challenging work arrangements extended beyond the post-COVID-19 time.

2.1. Mindfulness and Work Engagement

Mindfulness is about 'paying attention in a particular way, on purpose, in the present moment non-judgmentally' [16] (p. 4). Thus, when individuals are mindful, they are in a better position to make meaningful choices and to act non-judgmentally and increase perceived autonomous support [14,29], because mindfulness is not about wishing the present to be better, but rather about experiencing the present reality as it is [30,31]. Mindful individuals are able to pay steady attention to what is happening at the moment, both internally (their own feelings and thoughts) and externally (in the social environment) and let go of the negative emotions they experience. According to the broaden-and-build theory of positive emotions [9], individuals' positive emotional experiences such as joy, interest, contentment, and love can be attained from being mindful, because positive emotions broaden the scope of attention, which can be further refined by improving the quality of being aware of the present moment with a non-judgmental attitude [31–33]. This non-judgemental attitude with a positive outlook and broadened mindset can in turn assist individuals to think positively and take actions to engage in work activities and build productive work relationships, despite working in the isolated WFH environment under pre and post = COVID-19 [3,5,32,34].

It is commonly acknowledged that a higher level of mindfulness is in fact associated with an individual's deeper immersion in work activities [4,31–33]. Leroy et al. claimed that enhancing the experience of immersion and attention can in turn induce a higher level of mindfulness, which is positively related to work engagement [4]. Using a sample of 299 working adults, Malinowski and Lim further tested the relationship between mindfulness and work engagement and found that self-reported mindfulness especially exerted positive outlooks such as hope and optimistic attitude and that such attitudes predicted a higher level of work engagement [5]. We, therefore, propose that:

H1: *An increased level of mindfulness enhances work engagement.*

2.2. Mindfulness and Psychological Flourishing

Psychological flourishing is a key concept in the area of positive psychology that focuses on valuing human functioning to enhance personal strengths and positive social relationships, especially in the workplace, that contribute to psychosocial well-being [9,10,24]. Psychological flourishing is further described as having a high level of hedonic (i.e., dealing with pleasure and happiness) and eudemonic well-being (dealing with human potential, meaning, and purpose of life [9,23,24]. Prior findings suggest that persons with a high level of psychological flourishing experience a state of optimal mental health and are willing to develop warm, trusting relationships with others, and enjoy better social relationships at work [9,24,35].

Taking the key tenets from the broaden-and-build theory [9] again, we argue that psychological flourishing conceptualised as the psychosocial properties of individuals is likely associated with having positive emotions and enduring personal resources, which can be generated by being mindful [23]. For instance, Leyland et al. suggested that employees' mindfulness enhances the quality of social relationships at work through self-regulation. Individuals' ability to regulate their behaviour helped them to select appropriate and acceptable organisational behaviour and reduce impulsive reactions, which in turn facilitates better social functioning [35].

Furthermore, Catalino and Fredrickson applied an experimental study with a sample of 208 adults and found that two-way positive associations between mindfulness and flourishing occurred [8]. People who flourish generally are motivated to develop more positive emotions in response to everyday pleasant events such as helping, interacting, playing, learning, and spiritual activity. This greater positive emotional reactivity, over time, would predict higher levels of mindfulness. Those people with a higher level of mindfulness also demonstrated a higher level of flourishing [8]. Thus, it is possible:

H2: *An increased level of mindfulness leads to a higher level of psychological flourishing.*

2.3. Psychological Flourishing and Work Engagement

Work engagement can be affected by factors such as authentic functioning and positive attitude (i.e., hope and optimism) [4,5]. Positive emotions generated from experiencing psychological flourishing through individual dispositions and organisational social relationships can further stimulate employees to immerse themselves and engage more at work.

Personal resources such as self-efficacy, organisationally based self-esteem, optimism, and extra-role behaviour play a direct and indirect role to deal with demanding work situations [19,36]. Fredrickson identified psychological flourishing as an effective personal psychological resource that promotes the optimal mental health of individuals who not only feel good about themselves but also contribute to the world around them in positive ways [9,21]. Employees who flourish may develop intrinsic motivation to contribute to the workplace and community, by being actively engaged at work [36].

Moreover, according to the principles of positive psychology and based on the Meaning element (i.e., finding a purpose in life larger than oneself) of the PERMA model [25,28], we argue that flourishing employees broaden their repertoire of available resources and

actively engage at work when they find their work to be meaningful [5,8,37]. Hence, we propose that:

H₃: *Employees with a higher level of psychological flourishing would have a higher level of work engagement.*

2.4. Mediating Effect of Psychological Flourishing

It is commonly argued that mindfulness at work may help employees develop resources that are potentially associated with greater job satisfaction and affective commitment, and with less psychological distress (15,34). Although the mediating role of psychological flourishing was not tested in the study by Zivnuska et al. [15], psychological distress was found to fully mediate the relationship between mindfulness and affective commitment. Therefore, it is possible that a positive motivational sense of well-being, in line with a positive effect of psychological capital, exerts an indirect effect on the relationship between mindfulness and organisational outcomes such as work engagement. Given the limited studies testing the mediating role of psychological flourishing, the present study hypothesises that:

H₄: *Psychological flourishing mediates the relationship between mindfulness and work engagement.*

2.5. Moderating Role of Organisational Mindfulness Training Programs

The effectiveness of organisational mindfulness training programs has been the focus of many meta-analyses [6,38] and reviews in recent years [39,40]. The general consensus is that individuals supported by organisational mindfulness-based interventions increase their level of mindfulness [6]. Therefore, it is anticipated that employees with active participation in organisational mindfulness training programs may broaden their positive emotions and work experiences and build personal resources, with an aim to facilitate their personal development and deepen their psychological flourishing [41]. Walach et al. also explored the experiences of employees following mindfulness training programs provided by a service centre to reduce stress [42]. Although only 29 out of 185 employees volunteered to participate in the organisational training program, the results showed that 91% of those participants found the organisational mindfulness training to be effective and useful in helping them make positive changes [42].

Nowadays, hundreds of meditation and mindfulness techniques can be practiced by individuals. Organisations have also engaged in using mindfulness training programs to promote and motivate employees to develop their self-monitoring abilities to reduce negative emotions at work, especially in times of COVID-19 [3,43]. The effectiveness of a seven-week internet-based happiness and mindfulness training program in improving the well-being of 147 employees was tested by Feicht et al. [41]. The findings showed that happiness, well-being, mindfulness, and flourishing increased significantly for the intervention group, whereas no significant effects were shown for the control group. The strongest correlation between study variables existed between mindfulness and flourishing, whereby positive effects and emotions generated from an enhanced level of mindfulness helped broaden and build personal resources [7,9,21]. As such, we could expect the following:

H₅: *Participation in organisational mindfulness programs moderates the mediated relationships between mindfulness and work engagement via psychological flourishing, whereby a stronger effect of psychological flourishing on the relationship between mindfulness and work engagement would occur to those employees with active participation in organisational mindfulness training programs.*

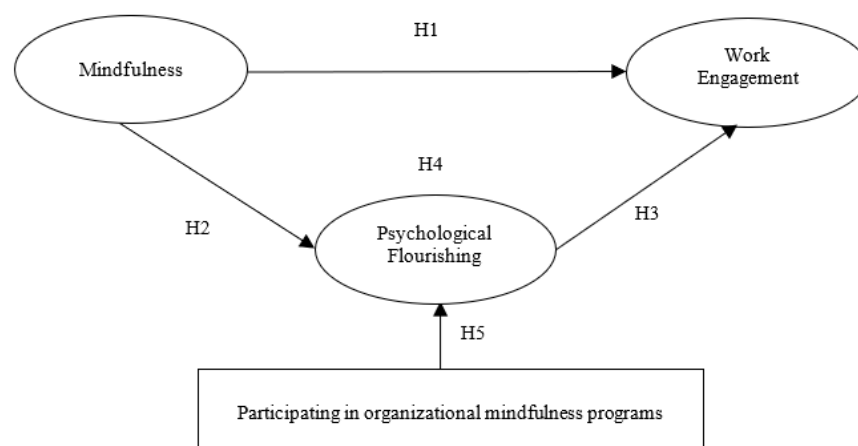The conceptual framework depicting the above-discussed hypotheses is shown in Figure 1.

Figure 1. The conceptual framework.

3. Method

3.1. Sample and Procedure

For the purpose of testing the hypotheses developed for this study, we used the online survey data collected in 2017. A non-probability snowball sampling approach [44,45] was used with several channels applied to generate the survey responses. First, the online survey was posted via the 2nd author's social media platforms, such as Facebook and LinkedIn, to invite participation in the study. Second, potential participants were also contacted through publicly available e-mail addresses (e.g., contact details displayed on organisation websites, such as those in the higher education sector). Third, the participants who had filled in the survey were encouraged to help with the distribution of the online survey through their own social and professional networks. The online link provided to potential participants was accompanied by the ethics approval reference and a consent statement that contained a brief description of the study purpose, time commitment, and details regarding the confidentiality and use of the information gathered.

A total of 229 usable responses were gathered; 47% of these respondents were male and 53% were female, 57% of respondents were from Australia and 43% were from Sri Lanka. Participants' age ranged from 22 years to 70 years (M = 39.41, SD = 10.41). Most respondents obtained higher education levels, with 42% holding a bachelor's degree or equivalent, and 41% with master's or doctoral-level qualifications. Of the total sample, 39% participated in organisational mindfulness programs such as yoga and mindful walking/colouring, while 61% never participated in such programs.

3.2. Measures of Key Variables

Work engagement was measured with the Utrecht Work Engagement Scale (UWES), which consists of 17 items developed by Schaufeli et al. [46]. This scale has been widely used in different cultures and countries and validated both as a one-factor and three-factor construct to measure how employees feel at work [46–49]. Examples of items include "My job inspires me" and "I am immersed in my work". Items in the scale were rated on a 7-point scale ranging from *never* (=0) to *always* (=6).

Psychological flourishing was measured with the 8-item Flourishing Scale developed by Diener et al. relating to the PERMA model, describing important aspects of human functioning ranging from positive relationships to feelings of competence and accomplishment, to having a meaning of life in general (including at work) [24,25,50]. An example item is "I actively contribute to the happiness and well-being of others". Each item on the scale was answered with a 1–7 scale ranging from *strong disagreement* (=1) to *strong agreement* (=7).

Mindfulness was measured by the 10 items of the Cognitive and Affective Mindfulness Scale-R (CAMS-R) developed by Feldman et al. [33]. Items in the scale were rated on a

4-point scale ranging from rarely/not at all (=1) to almost always (4). An example item is "It's easy for me to keep track of my thoughts and feelings".

Participation in organisational mindfulness programs was assessed by asking whether they participated in mindfulness programs at work or not. Participation was coded as 1 and non-participation as 0.

When testing all control variables in the model, it was found that age, gender, level of education, and country of origin are not significantly related to any key constructs tested in the model. Subsequently, these variables were not included in the further analysis.

4. Results

Table 1 reports the descriptive statistics and correlations among the key study constructs. As indicated, all of the variables were adequately reliable.

Table 1. Descriptive statistics and correlations for key study variables.

	M	**SD**	α	**1**	**2**
1. Mindfulness	24.98	4.07	0.78		
2. Psychological Flourishing	47.07	5.19	0.89	0.46 ***	
3. Work Engagement	47.82	8.05	0.91	0.46 ***	0.51 ***

n = 229, *** *p* < 0.001.

4.1. Measurement Model

Results of the confirmatory factor analysis (CFA) of 17 items of 'work engagement' indicate that the one-factor model fits the data better (see Table 2), as the key indicators such as X^2/df = 1.88, RMSEA 0.06, SRMR 0.03; CFI = 0.982; TLI = 0.971 are stronger than that in the three-factor model (i.e., X^2/df = 5.20, RMSEA 0.13, SRMR 0.04, CFI = 0.916; TLI = 0.874). Cronbach α = 0.91 also demonstrates a high reliability of the scale for choosing the one-factor model.

Table 2. Model fit indices.

	X^2/df	**RMSEA**	**SRMR**	**CFI**	**TLI**
Mindfulness	2.28	0.07	0.07	0.910	0.903
Psychological Flourishing	1.66	0.05	0.03	0.980	0.969
Work Engagement (One-factor model)	1.88	0.06	0.03	0.982	0.971
Measurement Model	1.80	0.05	0.06	0.903	0.901
Hypothesised Mediation Model	1.34	0.04	0.03	0.990	0.980

n = 229.

Similarly, results of the CFA of 8 items for 'psychological flourishing' indicate that the one-factor model fits the data well, supported by the key indicators such as X^2/df =1.66, RMSEA 0.05, SRMR 0.03 and CFI = 0.980 and TLI = 0.969. The scale reliability for psychological flourishing was Cronbach α = 0.89. CFA was also conducted to assess the factor structure of the 'mindfulness' scale. All 10 items were loaded onto a single latent variable. The results indicated an acceptable model fit with key indicators (X^2/df = 2.28, RMSEA 0.07, SRMR 0.07 and CFI = 0.910 and TLI = 0.877). The scale reliability was Cronbach α = 0.79.

4.2. Common Method Variance

Due to the nature of our data being cross-sectional, there is a need to address the issue of common method bias when conducting structural equation modelling (SEM). It is suggested that SEM does somewhat mitigate the potential bias related to the presence

of common method variance (CMV) [51]. Thus, Harman's single-factor test was used to assess the degree to which CMV may inflate the observed relationships between measures. Accordingly, all observed variables were forced into a single latent construct to examine whether a single factor can account for all the variance in the data and whether the subsequent model would fit the data. Results indicate that CMV only accounts for 13 percent of the variance in the data in the current study, which is not an issue [52].

4.3. Test of Hypothesised Relationships

As per the conceptual framework (Figure 1), to test H_1-H_4, a path analysis was performed. After ensuring the validity and reliability of the measurement model, we estimated the structural model in which 'mindfulness' was an independent variable, 'psychological flourishing' was the mediator and 'work engagement' was the dependent variable. The fit indices indicated an acceptable model fit (X^2/df = 1.35, RMSEA = 0.04, SRMR= 0.03, CFI = 0.990 and TLI = 0.979). The direct effect of mindfulness on psychological flourishing ($\beta = 0.47$, $p < 0.001$), mindfulness on work engagement ($\beta = 0.29$, $p < 0.001$), and psychological flourishing on work engagement ($\beta = 0.35$, $p < 0.001$) were all significant (see Figure 2). Therefore, as depicted in Figure 2, all four hypotheses (H_1, H_2, H_3 and H_4) are supported. The indirect effect of mindfulness on work engagement via psychological flourishing was significant ($\beta = 0.17$, $p < 0.01$), suggesting a partial mediation effect.
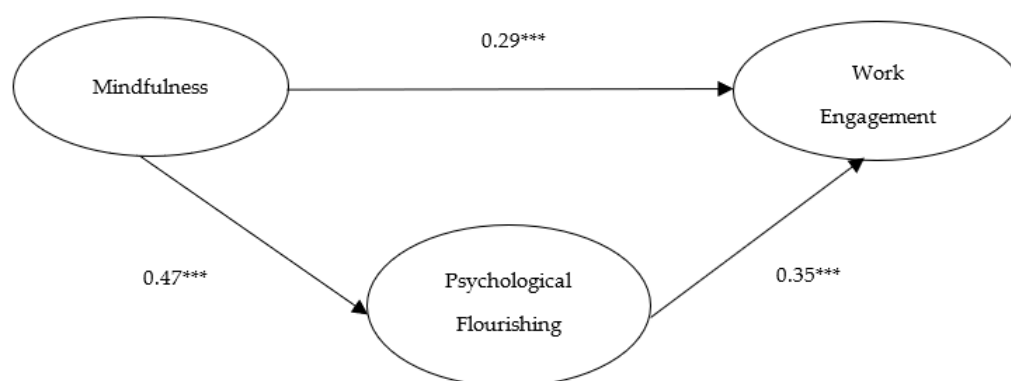
Indirect effect, $\beta = 0.17$, 95% CI (0.10, 0.24)

Figure 2. Hypothesised model. *** $p < 0.001$.

4.4. Analysis for Participation in Organisational Mindfulness Programs

In the current study, a total of 88 respondents (39%) participated in organisational mindfulness programs while 141 did not. A MANOVA test was run, and the results showed significant differences between the groups in terms of the model variables [$F(4, 223) = 12.851$, $p < 0.001$]. A follow-up univariate ANOVA test was conducted and the results showed no significant differences between the groups in the case of 'psychological flourishing' [$F(1, 226) = 4.059$, $p = 0.696$]. However, there were significant differences in the case of 'work engagement' [$F(1, 226 = 31.04$, $p < 0.001$) and 'mindfulness' [$F(1, 226) = 13.93$, $p < 0.001$]. Table 3 shows the marginal means for the two groups, indicating that the participant group had significantly higher mean scores than the non-participant group for 'mindfulness' and 'work engagement'. However, the effect size was moderate for 'mindfulness' and relatively large for 'work engagement'. This finding suggests that the use of organisational mindfulness training programs may help enhance work engagement.

4.5. Moderating Mediated Effect of Organisational Mindfulness Programs

The test of invariance showed significant differences in the model weights for employees who did and did not participate in the organisational mindfulness training programs (Chi-squared = 13.115, df = 5, $p = 0.022$). The most significant difference was for the path linking 'mindfulness' to 'psychological flourishing' (t = 2.269). However, trending signifi-

cant differences were observed for the paths linking 'mindfulness' to 'work engagement' (t = 1.812). For participants in the program, there is full mediation of the relationship between mindfulness and work engagement by psychological flourishing, with no significant direct relationship between mindfulness and work engagement (see Figure 3). However, in the case of the non-participation group, there is partial mediation with a significant direct path as well as a significant indirect path between mindfulness and work engagement, mediated by psychological flourishing. The index for mediated moderation [β = 0.28, 95% CI (0.14, 0.42)] suggest that the indirect effect of 'mindfulness' on 'work engagement' is relatively high among participant group (see Figure 3), compared with that of non-participant group ([β = 0.13, 95% CI (0.06, 0.20)] (see Figure 4). Standardised direct and total effects of the mediating role for the participant group are shown to be larger than those non-participant group, despite the indirect effects appearing to be quite different (see Table 4). This is understandable as those workers who have already been involved in the mindful training programs would be more engaged than those who did not participate in such training programs. However, the cycle of participation and engagement may be ceased to be effective if individual employees start self-practising mindfulness at home and/or at their own pace, rather than continue taking advantage of organised training programs. Future research should look at whether the level of work engagement can be still maintained and sustained by those employees with a higher level of mindfulness, yet without participating in organisational mindful training programs.

Table 3. Marginal Mean (Standard Errors) for Groups.

| Employee Group	Frequency of Mindful Practice	Mindfulness	Psychological Flourishing	Work Engagement
Non-Participants	3.445 (0.147)	27.05 (0.35)	46.96 (0.43)	86.39 (1.06)
Participants	4.105 (0.186)	29.14 (0.44)	47.24 (0.55)	95.87 (1.34)
Effect Size (η^2)	0.033	0.058	0.001	0.121
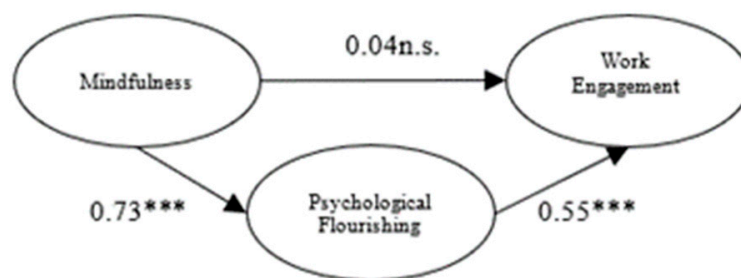
Indirect effect, β = 0.28, 95% CI (0.14, 0.42)

Figure 3. Participant group. *** $p < 0.001$.

Table 4. Standardised effect sizes for the mediation relationship between mindfulness and work engagement–participation vs. non-participation.

	Participation			Non-Participation		
	Direct Effect	Indirect Effect	Total Effect	Direct Effect	Indirect Effect	Total Effect
Effect Size	0.291	0.136	0.427	0.076	0.321	0.396
Lower 95% CI	0.130	0.070	0.263	−0.129	0.166	0.182
Upper 95% CI	0.442	0.213	0.554	0.282	0.501	0.588
p-value	0.001	0.001	0.001	0.476	0.001	0.001
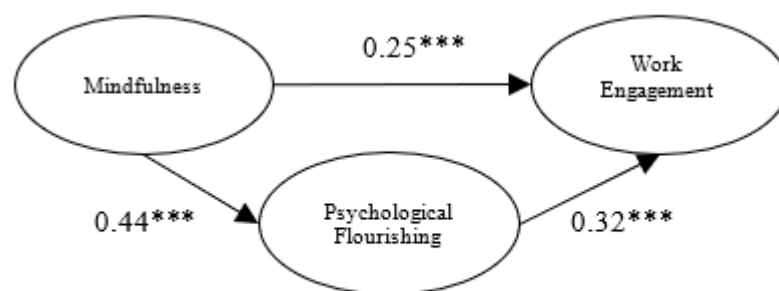
Indirect effect, $\beta = 0.13$, 95% CI (0.06, 0.20)

Figure 4. Non participant group. *** $p < 0.001$.

5. Discussion and Conclusions

Positive psychology suggests that people with a hopeful outlook and joyful disposition tend to be more engaged at work and accomplish more life goals than those without [25]. This hopeful outlook and joyful attitude are particularly helpful when encountering uncertainty in life and work isolation during and post-COVID-19 time, when many employees were forced to take the WFH option. Although our study was based on the data collected prior to the COVID-19, the findings show that being positive is one of effective personal resources that can be sourced from exercising mindfulness and experiencing psychological flourishing for employees to handle uncertainty and for organisations to increase workforce engagement [3,9,21].

This study was initially set out to address the key research question of whether positive emotions attained from being mindful and experiencing psychological flourishing would help sustain workforce engagement. Our findings from the path analysis and subsequent comparison of those employees participating in organisational mindfulness training programs show that the mediating effect of psychological flourishing on the relationship between mindfulness and work engagement was indeed significant, and those participating in workplace mindfulness programs demonstrate stronger engagement. These findings from testing different theoretical constructs such as psychological flourishing and work engagement confirm the tenets of the positive psychology theory and the broaden-and-build theory of positive emotions. We make the following theoretical and practical contributions to enhance the existing knowledge on how positive emotions at work can be achieved and why they are important for sustaining workforce engagement.

To address the question of 'how', first, the study findings show both direct and indirect effects of mindfulness, which underpin the development of positive emotions, on work engagement. In particular, the study found another underlying factor such as employees' experiences of psychological flourishing that have significant roles in generating positive emotions, which mediated the relationship between mindfulness and work engagement, consistent with previous findings from the study by Malinowski and Lim [5]. In addition, psychological flourishing can be treated as another factor in further theorising the tenets within the PERMA model [25] and broaden-and-build theory in the field of positive psychology [9].

Second, the key arguments of the broaden-and-build theory [9] support the notion that mindfulness could influence workforce engagement not only by its direct qualities of a person's refined attention, awareness, and acceptance of present reality, but also by indirectly increased psychological flourishing via participating in organisational mindfulness programs. Our study findings provide further evidence on the magnitude of the effect of those employees participating in organisational mindfulness training programs, compared with those who did not. This suggests that in addition to personal resources, organisations should continue allocating more resources to help employees build and broaden positive emotions via mindfulness programs [21]. In an increasingly online and working from

home (WFH) environment, organisations may need to seek innovative ways to introduce mindfulness exercises and training programs to assist day to day lives of their employees. One such initiative could be to organise weekly online yoga or meditation programs with an instructor where both employees and their family members can participate for relaxation so as to increase their sense of work–life balance.

To address the question of 'why', our findings suggested that both 'mindfulness' and 'psychological flourishing' significantly increased the level of work engagement. In particular, the magnitude of mediating effect of psychological flourishing on the relationship between mindfulness and work engagement increased (from $\beta = 0.47$ to $\beta = 0.55$, $p < 0.01$). Most remarkably, the magnitude of the moderating effects of employee participation in organisational mindfulness training program on the level of 'work engagement' had dramatically increased too (from $\beta = 0.35$ to $\beta = 0.55$, $p < 0.01$) among the participation cohort, with a slightly larger size of the total effect. This line of findings appears to be consistent with the argument by Badham and King [53], who reckoned that, when employees practice mindfulness with other employees, for example, online yoga via zoom, the habit of a collective practice of mindfulness may facilitate psychological bonding and growth so as to motivate each other to broaden and build positive emotions and improve collective resilience, thus building commitment towards the work they have to complete [7,9,21,53]. Therefore, in moving forward under still uncertain post-COVID-19 time, and an increasing hybrid form of work arrangement, organisations can introduce online mindfulness programs to both their employees and family members. This can be an enjoyable way for employees to spend time with their family and work colleagues while enhancing psychological well-being [54]. Online mindfulness programs were found to facilitate team cohesiveness, employee well-being and their work–life balance [55]. Research findings in the Italian context show that mindfulness-based online intervention increases well-being [56]. Avril's online corporate mindfulness program was adopted globally by big and small businesses as organisations using it reap benefits such as increased productivity, reduced, stress, enhanced creativity, better teamwork, and improved health and well-being [57].

Although the sense of mindfulness is individually based, organisations should rigorously create a strong awareness of the benefits of being mindful and encourage employees to actively participate in their mindfulness training programs that aim at broadening and building employees' personal resources and positive emotions to achieve a high level of psychological flourishing and work engagement. Without employee participation in the organisational mindfulness training programs, two outcomes can be induced. First, valuable resources aiming at enhancing employees' work–life balance and well-being are wasted. Second, the effects of non-participation on lowering work engagement (from $\beta = 0.29$ to $\beta = 0.25$, $p < 0.01$) were evident. Thus, it should be fully acknowledged that the combination of personal and organisational resources is an important contributor to psychological flourishing that helps employees reduce stress and enhance their well-being, and is essential to create positive emotions at work [55].

We also acknowledge that mindfulness as a general personal strategy may be largely determined by individual dispositions such as personality, education, age and religious background [42,58,59]. However, the current study findings show that the control variables such as age, religion, education, gender and country of origin (Australian and Sri Lankan in this case) were not statistically linked to mindfulness and engagement. Despite its individual disposition, psychological flourishing may be promoted as an organisational tool used by managerial practitioners to help generate their subordinates' positive resources during difficult time such as COVID-19 for employees' work engagement, especially working remotely [54,60]. Future research should investigate the effects of these control variables on enhancing psychological flourishing and online mindfulness programs conducted in the WFH context [11].

Furthermore, despite the test of three distinctive constructs—mindfulness, psychological flourishing, and work engagement in the current study, the choice of the non-probability

snowball sampling approach may have induced a sampling bias. In addition, cross-sectional data with the convenience sampling of single raters would augment the issue of common method bias [61], even though we have addressed this sufficiently. We also acknowledge the small sample size of the current study which was limited to 229 participants.

Another limitation is related to the sampling bias, with 83% of the participants with higher levels of education. Thus, the findings from the current study may not be generalizable. The focus on employed individuals in the work environment may help improve the generalizability of the findings to some extent. Future research should extend to include a sample of employees with different education levels, so as to compare and contrast the different responses by employees to the concepts of mindfulness, psychological flourishing, and engagement.

Lastly, we attempted to validate the scale used in the existing research on the relationship between mindfulness and engagement and confirm a one-factor solution for the three important constructs (i.e., mindfulness, psychological flourishing, and engagement). Earlier studies tend to treat mindfulness as a multidimensional construct [4,5]. Future research in a similar field could adopt the multidimensional construct of mindfulness to test their various effects on psychological flourishing and how they could generate positive emotions to enhance and sustain workforce engagement post-COVID-19.

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