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Collective wellbeing and posttraumatic growth during COVID-19: how positive psychology can help families, schools, workplaces and marginalized communities

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ABSTRACT

Positive psychology approaches have been shown to play a vital role in protecting mental health in times of challenge and are, therefore, important to include when studying the psychological outcomes of COVID-19. While existing research has focused on individual psychological health, this paper focuses on collective wellbeing and collective posttraumatic growth, with the aim of more clearly identifying the positive experiences and potential for positive growth for key institutions in our society during the pandemic. A range of positive psychology interventions for families, schools, workplaces, and clinical psychology are presented. The paper then considers how three broad-reaching phenomena existing in our wider society (i.e., arts and culture, eco-connection, and wellbeing literacy) can be used to boost collective wellbeing. A positive systems approach to understand civilian responses to the pandemic together with an examination of the role that positive psychology can play in supporting marginalized groups are also discussed.

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In July 2020, Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization (WHO), labeled COVID-19 as the most severe global health emergency the WHO has ever seen (New Daily, 2020). Measures to suppress the spread of the virus have included sealed borders, forced quarantines, stay-at-home orders, school closures, remote working, physical distancing, and the use of personal protective equipment (Imai et al., 2020). These measures were vital for disease containment and to protect the biosafety of the population (Imai et al., 2020; Sohrabi et al., 2020), but have put intense pressure on individuals (Brooks et al., 2020) and key institutions in our society, including families, schools, and workplaces (Evans et al., 2020; Golbabaie & Kalantari, 2020; Hyde, 2020).

At the individual level, threat of the virus itself and the adversity caused by lockdown, remote learning, telework, social isolation, economic pressure, and many other major disruptions to life, have led to widespread increases in mental illness-health amongst the general population including high levels of anxiety, depression, psychological distress, sleep disorders, and posttraumatic

stress disorder (PTSD; Brooks et al., 2020; Fiorillo & Gorwood, 2020; Salari et al., 2020; Shi et al., 2020; Van Agteren et al., 2020).

Beyond studying the impacts on individuals, calls have been made to widen the lens of COVID-19 research to examine the psychological impact at an institutional level (Verma & Prakash, 2020). A global pandemic, by definition, is a *collective phenomenon* and, thus, has impacts at the group and communal level which need to be better understood. Günther-Bel et al. (2020) argued that '[a]lthough the literature emphasizes psychological effects of quarantine on individuals, there are good reasons to consider implications for couple and family relationships' (p. 1061). Similarly, Li et al. (2020) called for management scholars in the field of human resources to 'utilize research to create a new "normal" for ... organizations, communities and nations' (p. 333). Masten and Motti-Stefandi (2020) contend that approaches must target 'families, schools, and communities' (p. 95) through a 'multisystem resilience perspective' (p. 95).

System approaches recognize that individuals are influenced by the institutions within which they are situated and, as such, these approaches move beyond individual-level interventions to target change at the collective level (Kern et al., 2020; Waters, 2020). By adopting a systems lens, it can be understood that a key way to help the billions of individuals who are suffering during the Coronavirus crisis is to affect change within the institutions they belong to. Families, schools, workplaces, and communities are shaped by three system components: (1) the system's *purpose*; (2) the *elements* that are available to that system; and (3) the *interaction* patterns that regulate day-to-day life of the institutions (Von Bertalanffy, 1968/2003; Whitchurch & Constantine, 1993). Using schools as an example to outline these three components, schools are institutions that have the *purpose* of educating young people and this is done through a range of *elements* (e.g., classrooms, teachers, technology, curriculum) that are affected through the *interaction patterns* of the institutions' members (e.g., students, teachers, peers, mental health professionals, administrators) in classrooms, the playground, and in online spaces during COVID-19.

A prominent example of system change during COVID-19 is the rapid infusion of biosafety interventions into our key institutions during 2020 such as masks, physical distancing, temperature checks, and hand washing. Masks, hand washing and temperature checks are new *elements* introduced into our institutions; physical distancing and remote working and schooling have redefined our *interaction* patterns during COVID-19; and the pandemic has created a new *purpose* – to stay safe, to keep functioning, and to help others (see the section on Positive Systems, which considers how another element of the system, that of culture, influences the degree to which biosafety interventions are adopted or not).

The rapid and widespread change in behavior that arose by embedding biosafety practices into society's core institutions prompts the consideration of how social-psychological interventions might be embedded to create change in families, schools, workplaces to boost wellbeing and growth during COVID-19. Indeed, past research on other collective disasters shows that key groups within our community serve to protect wellbeing and promote posttraumatic growth for large numbers of people across communities (Southwick et al., 2016), suggesting that institution-level interventions are warranted during COVID-19.

Borrowing from Allison et al.'s (2020) definition of collective flourishing, collective wellbeing is defined here as the phenomenon whereby a collection/grouping of people who are interconnected feel good and

function well together. For example, in non-pandemic times, Waters (2020) found that strengths-based interventions can boost happiness as a collective emotion across families that extends beyond the happiness of each individual family member. Páez et al. (2013) described collective posttraumatic growth as the perceived benefits that a group, community or society experience following trauma that is 'reflected in collective emotions, beliefs, values and social behaviors' (p. 18). According to Włodarczyk et al. (2017) 'it is likely that growth is produced more readily in microsocial networks' than individuals 'because processes of positive adjustment can be observed, modeled, and reinforced in the immediate environment' (p. 379) that is provided by families, schools and workplaces (e.g., see the section on families for how parents can model self-compassion to their children; see also the section on positive leadership and how this creates positive energy for employees during the pandemic).

Given the arguments above, the current paper explores a range of positive psychology factors and interventions that can be applied within key institutions (families, schools, workplaces, and psychology clinics) to promote collective wellbeing and collective posttraumatic growth during COVID-19. However, before the range of positive psychology interventions are explored, we must first consider the distress caused by COVID-19.

The negative effects of COVID-19 on families, schools, and workplaces

COVID-19 has radically changed the way we live and has created marked disruptions in family life, school, and work. With respect to families, Evans et al. (2020) assert that the shutdowns, shortages, and the stress of COVID-19 have led to 'unprecedented demands placed on families' (p. 2). Indeed, families have been affected by lockdown in a multitude of ways, including higher levels of divorce (Global Times, 2020), more intimate partner violence (Hamadani et al., 2020), increased conflict and negative family expectations (Günther-Bel et al., 2020), parental pressure (S. M. Brown et al., *in press*), as well as undesirable changes in family routines (e.g., dietary habits, physical activity, screen time, sleeping patterns; Allabadi et al., 2020). The negative experiences stemming from COVID-19 are markedly worse for disadvantaged families who are living in smaller, poorer-quality dwellings, have less access to vital services and resources, and are more likely to have to work in-person and, thus, have an increased risk of virus contraction (Owusu & Frimpong-Manso, 2020; Wilke et al., 2020).

Schools have also suffered via widespread shutdowns, with up to 91% of the students across the

globe experiencing remote learning on account of country-wide school closures in 2020 (UNESCO, 2021). Research shows that for many students, the move to remote learning has increased student loneliness (Loades et al., 2020), decreased student wellbeing (Nanigopal et al., 2020), and has harmed learning effectiveness (Owusu-Fordjour et al., 2020; Di Pietro et al., 2020). The negative effect of school closures is amplified for students who were already experiencing intersecting vulnerabilities (e.g., war, displacement, poverty, and weak healthcare and education systems; Banati et al., 2020). Those who live in marginalized communities or are economically disadvantaged are also at greater risk for negative outcomes due to the 'digital divide' (Eyles et al., 2020) and other factors, such as having no dedicated study space at home or having parents who are more likely to need to travel to work and are more at risk of contracting the virus (Andrews et al., 2020).

At the same time that students are struggling, the rapid move to remote learning has increased the workload and stress of teachers, school staff, and leaders/administrators (Alves et al., *in press*; Suryaman et al., 2020) and has put pressure on parents trying to help their children with learning while also working from home (Ahrendt et al., 2020; Fontanesi et al., 2020).

Like families and schools, workplaces are another institution that has been deeply impacted by COVID-19, with restrictions triggering an ad hoc, worldwide, telework revolution involving somewhere between 30% and 50% of the world's workforce working from home (Bick et al., 2020; Brynjolfsson et al., 2020; Milasi et al., 2020). This has had spillover effects for employee wellbeing, with workers reporting increased levels of technostress, organizational change fatigue, feeling pressure to be constantly online/available, increases in work-family conflict, and working longer hours (Molino et al., 2020).

Certain segments of the workforce have greater risk of contracting the virus and are working under highly pressurized conditions with heightened distress. These professions include healthcare professionals, medical responders (e.g., ambulance drivers), and those in the critical infrastructure workforce (i.e., essential/frontline workers). Frontline workers come disproportionately from socio-economically disadvantaged groups compared to the overall workforce, meaning that they suffer greater financial risks and an increased risk of virus contraction (Blau et al., 2020). Research on people in these professions/work roles has shown dramatic elevations in levels of mental illness and PTSD (Eisma et al., 2020; Groenewold et al., 2020; Skoda et al., 2020). A further group of employees who have experienced marked increases in pressure and greater demands are mental

health professionals as a result of marked increases in mental health concerns occurring worldwide (Gruber et al., 2020; Titov, Dear et al., 2020; Titov, Staples et al., 2020; World Health Organization (WHO), 2020; Z.-H. Wang et al., 2020).

What does a positive psychology approach have to offer in a time of crisis?

There is no doubt that families, schools and workplaces have all been deeply affected by COVID-19 and that further research is required to help understand how we can alleviate this distress. However, a recent analysis of academic databases containing COVID-19-related psychological research identified that the existing research is disproportionately deficit-focus with only 1% of the research examining positive outcomes (Burke & Arslan, 2020). Such extensive research emphasis on the problems caused by COVID-19 will skew the accumulated knowledge base, narrow the types of interventions that are put in place and bias our understanding of how people function and adapt during the pandemic. As argued by Waters et al. (2021) 'it is understandable that research is heavily directed towards addressing the ways in which people are wounded and weakened. However, this need not come at the expense of also investigating the ways in which people are sustained and strengthened' (p. 1). The current paper brings a positive psychology lens to studying COVID-19 and follows Wong's (2011) contention that 'positive potentials' can be harnessed from negative experiences.

From the outset, positive psychology has acknowledged that life has peaks and valleys (Peterson, 2006), that negative situations can give rise to positive growth (Ivtzan et al., 2015), and that positive approaches can help us through dark times (Fredrickson et al., 2003). For example, studies at the individual level have shown that higher use of character strengths is linked to lower levels of PTSD for children living in war zones (Shoshani & Slone, 2016) and that gratitude helps patients with chronic illness manage their pain and maintain wellbeing (Emmons & McCullough, 2003). Group-level interventions have studied how teachers can reduce burnout and find meaning when working with students affected by trauma (Brunzell et al., 2018). At the organizational level, positive leadership practices have been shown to help companies profit and employee morale following layoffs in the aviation industry caused by the September 11 attacks in the United States (Hoffer Gittell et al., 2006). Also, at the organizational level, a university-wide forgiveness campaign was shown to positively impact levels of forgiveness, love, and conflict between students, teachers, and parents (Griffin et al.,

2019). At the collective level, 'community resilience' (i.e., social ties, neighborhood cohesion, community hope, and commitments in the community) has been shown to assist communities to cope with violence and oppression (Ahmed et al., 2004) and led to positive outcomes such as community revitalization and reinvention (Sonn & Fisher, 1998).

Positive approaches play an important role for individuals, groups, organizations, and communities facing some of life's most challenging times, including war, violence, trauma, terrorism, illness, and oppression. Moreover, research shows that positive approaches not only help to minimize distress but also serve to build important outcomes that allow people to rise above adversity and create lasting growth in capacities, outlook, and connection (Waters et al., 2021). For example, the group-level positive changes outlined in the studies above include stronger employee morale, a deeper experience of professional meaning, greater levels of institutional forgiveness, and higher community resilience (Ahmed et al., 2004; Griffin et al., 2019; Hoffer Gittell et al., 2006; Sonn & Fisher, 1998). Positive psychology, then, plays a vital role in times of challenge. As such, in the current time of COVID-19 it is important that the deficit bias currently seen in social and psychological sciences (Burke & Arslan, 2020) is addressed by also intentionally studying positive outcomes and finding ways to heighten these.

A review of the literature shows that, despite distress and disruption, families, schools, and workplaces have still experienced positive outcomes. For example, Günther-Bel et al. (2020) found that sitting alongside the increases in family conflict was also a sense of increased family connection and a 'teamwork spirit.' Additionally, the move to remote learning, while negative for many students, has had a positive effect on academic performance for some and has helped more students to become self-managed and to develop continuous learning habits (Gonzalez et al., 2020). When it comes to workplaces, many upsides have been identified. In a unique study by Dubey and Tripathi (2020) of 100,000 tweets worldwide, analyzing sentiments about working from home during COVID-19, more than 73% of tweets had positive sentiments, with emotions such as joy, trust, and anticipation being posted (27% of the tweets reflected negative feelings about working from home such as fear, anger, sadness and disgust). However, this finding must be put into context with prior research showing that people typically self-censor negative online utterances (Marwick & Boyd, 2010) and that employees are more likely to upload positive posts about their workplace (Van Zoonen et al., 2014), hence it could be that the finding of 73% positive tweets about

working from home is over inflated. Participants in Raišienė et al.'s (2020) survey research identified benefits such as increased schedule flexibility, reduced commuting, the ability to combine work with other activities, and greater focus.

Beyond the positive aspects for families, schools, and workplaces, benefits can also be seen at the broader level in the form of environmental gains, policy change, raised awareness of social inequality, and an increased sense of community responsibility, social solidarity, and care. Environmentally, we have seen cleaner waterways and reduced air pollution, with NASA satellites documenting significant reductions in air pollution of 20–30% in many major cities around the world (National Aeronautics and Space Administration (NASA), 2020). People are using their time in lockdown to connect with and take care of nature and green urban spaces (i.e., local parks, roof top gardens, other green areas in the city that feature plant life or water features) (see the section below on Eco-connection) and governments are investigating how a post-COVID world could be 'greener' (Party for the Animals, 2020).

From a policy perspective, governments across the globe have implemented economic stimulus packages, employment programs, and social assistant programs to support their citizens through this crisis (Elgin et al., 2020; Kurpayanidi et al., 2020). Rapid policy responses enacted in relation to public health and social welfare have the potential for long-term positive impact in countries who have used policy as a lever to repair public health systems, improve disease detection systems, address public infrastructure challenges, and invest in online education platforms and telehealth services (Carter & May, 2020; Ozili & Arun, 2020).

The need for policy responses to address social inequalities has been sharpened through COVID-19, as has raising public awareness about the fractures that exist in our society (Chakravorty et al., 2020; Scambler, 2020). Indeed, Nobel laureate and economist Amartya Sen asserted that the seismic jolt of COVID-19 has created the conditions to open the eyes of the 'common people' to see the inequalities that exist (Hindustan Times, 2020).

Collectively speaking, a sense of community responsibility has surfaced, and many people have banded together through their shared experience of this crisis (Boyd & Martin, 2020). In Denmark, social media has been used to informally mobilize support groups and distribution of resources across neighborhoods (Carlsen et al., 2020). A qualitative study in Nigeria found many examples of social solidarity, with people pooling resources, sharing information, donating money, and distributing palliative care responsibilities

during lockdown (Igwe et al., 2020). A study in Jordan involving Facebook users across Arabic countries (Al-Omoush et al., 2021) found that people used Facebook to create a sense of community connection, to share information about the virus, and to help others feel that they were not alone in the crisis. People in Vietnam adopted an 'ethics of care' (Ivic, 2020, p. 346) which emphasized care, solidarity, and support for the vulnerable. According to Ivic (2020), this ethics of care has 'overcome binary oppositions: we/they, young/old, public/private, wealthy/poor, citizen/stranger, and so forth' (p. 346) during the pandemic.

In a Hong Kong study by Lau et al. (2020) investigating people's ratings across 11 perceived benefits of the pandemic (e.g., time for rest and relaxation; enhanced understanding of what values are more important in life) the items that covered community care/responsibility/bonding all scored above the mid-point on a seven-point Likert scale. For example: 'The pandemic enabled me to care more about my family/friends' (mean = 4.87 ± 1.37) and 'I have reached out to the people in need in my community during the pandemic' (mean = 4.17 ± 1.66). Lau et al.'s study did not include any measurements about the negative impacts of the pandemic on community connection (e.g., feeling isolated, acting out of self-interest, not caring for others), so we cannot say to what extent the pandemic has caused a negative effect on community connection. However, Lau et al., did measure psychological distress and found that even though the sample reported depression, anxiety and PTSD, they were still seeing a benefit of the pandemic as banding together and caring for each other. Indeed, one may speculate that it is because of their distress, and the compassion it may trigger, that they sought to care for others (see the argument earlier in this paper by Amartya Sen that the pandemic has sensitized people to the plight of others).

Integrating positive psychology into families, schools, workplaces, and clinical psychology practice

The findings above highlight that in the darkest of times we can see the shining examples of humanity and virtue, which leads to the question of how positive approaches are, and can, helping/help us during the COVID-19 pandemic. This section of our paper examines the role of positive psychology interventions (PPIs) across four institutions during COVID-19: families, schools, workplaces, and clinical psychology practice. Each section provides a brief description of the existing positive psychology research and then discusses how PPIs can be used to

increase the likelihood of collective wellbeing and/or collective posttraumatic growth during COVID-19.

Families

Families are a key institution within our society that have been dramatically affected by COVID-19, and by the same token, intentionally embedding PPIs into family life during lockdown has the potential to impact the wellbeing and posttraumatic growth of great numbers of adults (parents, grandparents), children, and adolescents across the globe.

Understanding family wellbeing is foundational to positive psychology (Seligman & Csikszentmihalyi, 2000). Relationships with family members are among the most important relationships in people's lives, influencing their day-to-day experiences and overall happiness (Furman & Buhrmester, 1985; Gerson et al., 1991; Nelson-Coffey, 2018). Several researchers have investigated family wellbeing by evaluating when, why, and how spending time with children is associated with parent wellbeing (e.g., Nelson et al., 2014), and by investigating interventions to promote family happiness (e.g., Waters, 2020).

Prior to the COVID-19 pandemic, families in many countries spent a substantial portion of their days together. For example, in the United States, working mothers with children younger than 13 spent more than three hours per day with their children (Genadek & Hill, 2017). Mothers and fathers in Australia and Denmark spent more than three hours per day with their children, and parents in Italy and France spent more than 2.5 hours per day with their children (Craig & Mullan, 2011). Furthermore, evidence suggests that fathers now spend more time with their children than they did in previous generations (Craig et al., 2014).

Family time has radically increased during the pandemic, with families spending more time at home on account of lockdown, distance learning, remote working, and social restrictions (Hudson, 2020; Levs, 2020). From a systems perspective, the system component of *interactions* has been radically altered, which can be both a positive and negative experience. Evidence suggests that spending time with one's children is associated with positive emotions and felt meaning (Musick et al., 2016; Nelson et al., 2013). The degree to which parents are motivated to promote their child's wellbeing is related to the degree to which they experience positive emotions, meaning in life, and emotional wellbeing when spending time with their children. Parental motivation also leads to more responsive parenting behaviors and improved relationship quality (Ashton-James et al., 2013;

Le & Impett, 2015), both of which can protect family wellbeing during COVID-19.

High-quality, positive interactions between parents and children also benefit children. For example, children's time spent engaging in educational (e.g., reading) and structured activities (e.g., arts and crafts) with their parents is linked with improved self-esteem and social competence (Hsin & Felfe, 2014). Similarly, adolescents reported greater eudaimonic wellbeing on days they felt more connected to their parents (Fosco et al., 2020). Adolescents also reported feeling loved by their parents when their interactions are characterized by warmth and support (Coffey et al., 2020).

However, the benefits of family time identified in the research above were not studied in a global pandemic, and, as outlined earlier in this paper, families are undoubtedly experiencing much greater strain during COVID-19 (Hiraoka & Tomoda, 2020; Janssen et al., 2020). Spending large amounts of enforced time together has increased family conflict (Evans et al., 2020). However, even with the potential for increased family conflict, positive psychology can help us find a constructive way forward. For example, evidence suggests that conflict may not always damage parent–child relationships. In one study of parents and adolescents, parent–child conflict did not disrupt adolescents' feelings of love as long as parents continued to demonstrate warmth (e.g., affection) when interacting with their child (Coffey et al., 2020). These findings suggest that in the midst of the challenges of the pandemic, focusing on connecting with children and offering warmth and affection – even during moments of strain and conflict – may benefit the entire family.

Investigations of family wellbeing in non-pandemic times may provide valuable insights for families to improve their emotional wellbeing during COVID-19. Positive psychology interventions that have been developed to improve family happiness (Waters, 2020), strengths-based parenting (Waters & Sun, 2016), relational savoring (Borelli et al., 2020), and compassionate parenting (Kirby, 2016) have been shown to improve coping and emotional wellbeing in parents – outcomes that families greatly need right now (Borelli et al., 2020; Burkhart et al., 2015; Kirby, 2016; Kirby et al., 2019; Waters, 2015a, 2015b; Waters & Sun, 2016).

In parents' efforts to promote family wellbeing and growth in the context of COVID-19, the positive psychology research suggests they can introduce a range of new practices into family life (i.e., new 'elements' into the family system): (a) use the technique of savoring positive emotional experiences (e.g., laughing together at a funny joke or baking together during lockdown) by reflecting on the details of the experience and talking as

a family about how that experience made them feel (Burkhart et al., 2015); (b) practice strengths-based parenting by having family conversations about each person's strengths and how they can be used in adversity to grow stronger through this crisis (Waters, 2015a, 2020); and (c) promote compassion in their relationships with their children by focusing on supporting their children during the moments when their children are suffering and struggling with lockdown life (Canevello & Crocker, 2015; Kirby et al., 2019). Beyond this, parents can cultivate wellbeing by walking together in the park or nature (see the section below on Eco-connection) or intentionally engaging in the arts and culture together, such as virtual museum tours or watching a TV series together as a family (see section below on Arts and Culture: Positive Humanities).

These positive practices may not only protect wellbeing in families during COVID-19 but may also become embedded as more permanent practices in the family. If the latter occurs, this would suggest that the family can ultimately experience posttraumatic growth by creating significant positive changes to family dynamics (e.g., savoring, strengths use, and compassion) that arose from the struggle with a major life crisis (Calhoun & Tedeschi, 1998).

Schools: student wellbeing

As outlined at the outset of this paper, the educational system and a student's daily schooling activities have drastically changed in 2020. As of early March 2021, worldwide, over 144,000,000 schools (pre-primary through secondary levels) were closed and over 1,136,000,000 were partially open due to COVID-19, with the highest rates of schools closed in April 2020 at over 1,480,000,000 schools, and the highest rates of schools partially open in May 2020 at over 495,000,000 schools (UNESCO, 2021). Embedding PPIs into schools during COVID-19 has the potential for widespread wellbeing outcomes across the youth in our society.

Students have experienced upheaval through shifts from in-person to e-learning, in some cases cycling through multiple waves of remote learning, with notable effects on their wellbeing. For students who are receiving remote education, particularly those with limited resources, their access to other important services such as special education, school-based mental health services, and student services (e.g., wellness center, nutrition) has been severely curtailed, as has the social support they would ordinarily get from peers and caring adults outside the home (e.g., Hoffman & Miller, 2020; Phelps & Sperry, 2020). For students that have returned, or will later return, to on-site learning, the school setting

is functioning/will function in a very different fashion due to the need for physical distancing, sanitizing protocols, and masks. Biosafety measures also require changes to the physical layout of the classroom, the way students can interact in shared spaces, the absence of typical gatherings (e.g., school assemblies), as well as other restrictions to the types of school activities that can be run and how these activities and other services are offered (see Melnick et al., 2020; UNESCO, 2020b). For instance, group counseling services may not be possible or reduced in size due to in-person and physical distancing considerations, and in-person individual counseling services for students typically contracted through other institutions have decreased in availability and/or shifted to tele-mental health to limit interactions between outside staff and students. Regardless of the teaching modality, existing data suggests that the mental health of young people around the world has been negatively impacted by COVID-19 (e.g., Martinex & Nguyen, 2020; Paredes et al., *in press*). Thus, special attention to foster student wellbeing is needed.

The 'new normal' for schools and its impact on student wellbeing could be considered in two respects. For some students, it might manifest in symptoms of chronic stress or burnout after enduring months of ongoing disruption. For other students it could be interpreted through the lens of hedonic adaptation in which even under extreme change (be it dire circumstances or extremely positive experiences), people (in this case children) eventually tend to adjust and return to their 'set' level of wellbeing (Sheldon & Lyubomirsky, 2012). In both scenarios, implementing positive psychological interventions (PPIs) could be beneficial (see Lyubomirsky, 2007; Magyar-Moe et al., 2015). In particular, PPIs that are intentionally designed to be 'balanced' in nature are called for during COVID-19. Balanced PPIs include processes and content that assist students to deal with distress (e.g., teaching mindfulness to students during COVID-19) *and* also help students to spot and amplify positive emotions and experiences in their current life (e.g., activities that help students identify what they feel hopeful or grateful for during COVID-19; Owens & Waters, 2020).

Schools – both in person and virtual – offer the unique ability to reach a large number of young people globally to provide education, tools, techniques, and support during this global pandemic. Indeed, a recent review of PPIs for children and adolescents illuminated that the vast majority of PPIs available for young people were designed for and/or conducted in school settings (75%), and of those 93% were held in groups (defined as an intervention involving more than one student, including full classrooms), meaning that positive psychology

has the capacity to help not only individual students but also whole classes, entire class levels and cohorts of students, and entire schools (Owens & Waters, 2020). Research on the effectiveness of PPIs in university settings (e.g., Conley et al., 2013; Koydemir & Sun-Selişik, 2016) can also be used to support large numbers of emerging adults, many of whom have had significant disruptions to their university studies.

COVID-19 has motivated many schools to have a dual purpose – that of promoting both learning and wellbeing. From a systems perspective, the larger *purpose* of schools to protect the wellbeing of their students in a pandemic creates a domino effect on teachers and school counselors who are encouraged to embed the use of PPIs into daily school life. For PPIs to have maximum effects they are best coordinated through the use of an evidence-based framework to ensure a consistent and strategic approach to protecting student wellbeing during the global pandemic. One framework could be Waters and Loton's (2019) SEARCH framework that supports student wellbeing through six pathways: strengths, emotional management, attention and awareness, relationships, coping, and habits and goals. The SEARCH framework may not only serve to protect student wellbeing but also to promote posttraumatic growth. For example, Waters et al. (2021) found that the degree to which students rated their school as building up the SEARCH pathways was significantly related to the degree to which they experienced stress-related growth once returning to school. Learning the SEARCH pathways prior to COVID-19 was also significantly related to emotional processing, positive reappraisal, and strengths use during remote learning. The importance of talking to students about the notion that they can not only survive the pandemic but can grow from the adversity it creates is a vital way of using wellbeing literacy (see section on Wellbeing Literacy below) to support students at this time.

During a period when resources, energy, and time are particularly stretched thin, focusing on the delivery of 'bite-sized,' evidence-based PPIs could help to balance a number of competing demands while still paying needed attention to student wellbeing. For instance, changing teacher practice (i.e., a systems element) can include having students practice mindful breathing at the start of a class period – be it virtual or in person – to help students examine their stress and negative thoughts with curiosity and compassion (Bluth et al., 2016). In the midst of a lesson, students could be prompted to focus on their strengths (e.g., Duan et al., 2014; Quinlan et al., 2015) or asked to engage in positive writing to explicitly identify positive experiences that have occurred during COVID-19 (e.g., Carter et al., 2018;

Reiter & Wilz, 2016). For homework, students could be asked to complete random acts of kindness to help others during this time of stress (Layous et al., 2012) or write or draw about their future best possible selves to help focus on positive possibilities in the future that may come after the pandemic (Layous et al., 2013; Owens & Patterson, 2013). Consistent use of PPIs in small doses may help provide a much-needed boost in student wellbeing and, thus, highlights the importance of taking a positive psychology approach in schools during this pandemic.

Schools: school staff and teacher wellbeing

International research by Hattie (2009) and Hattie and Yates (2013) has shown quality teachers as the most influential 'in-school factor' affecting student learning outcomes; however, it has taken this pandemic for governments to classify teachers as essential workers (White, 2021a; White & McCallum, 2021b). As schools endure multiple waves of COVID-19 closures, teachers have been challenged to flip their classroom from traditional face-to-face models of learning to online teaching. In a rapid pace, teachers needed to operationalize innovative technologies, rethink student engagement activities, promote classroom belonging, and develop new strategies to encourage learning continuity. As Collie (2021) emphasises, school administrators, principals and mental health professionals, including school psychologists and counsellors, as reported by Burke and Arslan (2020), have also reported increased levels of occupational stress associated with decision-making and service delivery during such challenging times. These activities reflect changes in the school systems *purpose, elements, and interactions* – all of which have had significant impacts on teachers.

The disruption of COVID-19 has impacted teacher wellbeing in several ways (White & McCallum, 2021). From a positive perspective, evidence shows that teachers have re-discovered their strengths of creativity, innovation, and perseverance to keep the continuity of learning for their students and adapt their learning outcomes (Kaden, 2020; Kim & Asbury, 2020; McCallum, *in press*). For example, teachers quickly created regular wellbeing check-ins with families and caregivers to reinforce school belonging and check potential obstacles (McCallum, *in press*; M. White, 2021). Teachers have also been able to draw upon their self-regulation and determination to provide safe and supportive learning environments. At the same time, this move to remote learning has led to significant teacher burnout and stress (Sokal et al., 2020).

One outcome of COVID-19 has been the rise in prominence and visibility that wellbeing has been given for teachers and other employees working in schools (e.g., school psychologist, IT staff, communications and public relation teams, human resource managers). Positive psychology has a key role in how education systems can be changed to better build wellbeing for adults and students alike. Indeed, the current pandemic has heightened the need for wellbeing to be more firmly embedded and integrated into school culture and strategic goals moving forward. White and McCallum (2020a, 2020b, *in press*) and White (2020, 2020a, 2021b) have suggested three key areas where positive psychology could be utilized in the change-making process: 1) policy, 2) the pipeline of future teaching graduates, and 3) professional development for existing teachers, school leaders and administrators. Regarding policy, educational leaders can be encouraged to integrate evidence-informed wellbeing approaches into accredited professional development for school leaders, teachers and other school staff. Examples include professional learning and leadership team activities that adopt strength-based approaches, the integration of Cooperrider et al.'s (2008) appreciative inquiry into leading change processes at the organizational level and the use Stavros et al.'s SOAR (Stavros et al., 2003) strategy to develop strategic plans that weave wellbeing in at the workplaces level. Schools are workplaces too and, thus, the recommendations provided in the workplaces section below will also be applicable to employee wellbeing for those who work in schools.

With respect to the pipeline, universities can integrate evidence-informed wellbeing frameworks into initial teacher accredited education courses to better prepare 'classroom-ready' graduate teachers to know how to take care of their own wellbeing and the wellbeing of their students through the complexities of the next decade (White, 2021a; White, 2021b). For example, initial teacher education programs could create modules integrating developments in wellbeing science with professional experience. These could be expanded in school teaching practicums encouraging preservice teachers to identify the link between theories of teaching, wellbeing education and teacher professional practice. Furthermore, modules could be aligned with national standards for teachers and developed in school-university partnerships to enhance critical teacher reflection (White, 2020).

Finally, teacher professional practice moving forward must develop a culturally and contextually responsive pedagogy of wellbeing education. This should focus on integrating teachers' professional identity (who teachers are), professional practice (what teachers do) and

efficacy (how teachers know they are having an impact) with existing wellbeing concepts and activities. While there is extensive literature on crisis management in schools and schooling, positive psychology can also enhance this area (Bush, 2020). Deeper integration of strength-based activities and the application of appreciative inquiry during times of crisis can enhance crisis management strategies, and not overlook the creativity and innovation that can be discovered during times of crisis (White & McCallum, 2021).

Workplaces: positive leadership

Aside from families and schools, workplaces are another key institution in our society that has been dramatically affected during COVID-19, leading to changes for large numbers of our adult population, both negative and positive. With the heightened uncertainty that COVID-19 has brought to workplaces, the impact of leaders on employee wellbeing is critical.

Positive leadership (PL) is an approach where leaders display attitudes and behaviors that highlight the positive aspects of difficult circumstances and can be seen as a core *element* of a workplace system (Cameron et al., 2003). Positive leaders focus more on what is right or what can be learned from a challenging situation rather than what is wrong and what is missing. Among the most important characteristics of positive leaders is the demonstration of virtuous behavior. Positive leaders demonstrate attributes such as gratitude, compassion, humility, forgiveness, and trustworthiness – not usually the norm in turbulent times. They prioritize life-giving rather than life-depleting energy (Cameron, 2012, 2013). Most importantly, they focus on helping others flourish without expecting a payback. When these virtuous behaviors are present in leaders, there is strong empirical evidence that individuals and organizations perform at significantly higher levels. At the organizational level, profitability, productivity, quality innovation, and customer satisfaction scores all increase significantly compared to industry averages (Cameron et al., 2011). At the employee level, PL predicts employee wellbeing, employee engagement, and job satisfaction (Owens et al., 2016). PL also spills over into the home life of employees, who reported greater family enrichment when they had positive leaders at work (Owens et al., 2016).

One reason these beneficial outcomes occur is a result of the type of energy that positive leaders emanate. Energy can be broadly distinguished into positive and negative forms. Positive energy is a life-enhancing force; negative energy is life depleting. Scientific studies confirm that all human beings have an inherent

inclination toward positive energy and away from negative energy, or toward life-enhancing forces and away from life-depleting forces. This is known as the heliotropic effect (Baker et al., 2003; Doidge, 2016; Erhard-Seibold, 1937; Heaphy & Dutton, 2008; Loeb & Northrop, 1917; Northrop & Loeb, 1923). Positively energizing leadership does not mean mere extraversion or high levels of activity; rather, positive leaders are characterized by positive relational energy, meaning that they uplift, elevate, and renew others around them at the same time as they are themselves uplifted, elevated, and renewed. Demonstrating virtuous behaviors helps relational energy escalate. Specifically, when leaders demonstrate virtuous actions such as generosity/altruism/unselfish contribution, gratitude/recognition/humility, and trust/integrity/honesty, people resonate and elevate their own performance (Cameron & Caza, 2002; Crocker & Canevello, 2016; S. L. Brown et al., 2003). This is because when individuals feel valued, recognized, and cared for – products of leadership virtuousness – and when they observe virtuous actions in others, they broaden their behavioral repertoires and build upon or expand their own performance (Fredrickson, 2013; Kok et al., 2013). Broadened thinking and actions are especially needed during COVID-19, given the multitude of uncertainties workplaces are facing and, thus, frequent adaptations they need to make. Below are two examples of this broadened thinking and PL during COVID-19 and how workplaces extended the systems elements of *purpose* and *interactions* to take care of employee wellbeing.

The CEO of one major German company recently launched a positive leadership initiative involving her top 200 leaders in the midst of the pandemic and while facing a significant loss in revenues. Her rationale was that the positive energy that emerges from PL practices during this crisis is the best formula for overcoming the losses associated with the pandemic. In another example of PL during the pandemic, the Business and Finance Division at the University of Michigan launched a '90-in-90 Challenge' in the midst of the COVID lockdown. A group of 'positive energizers' were charged with introducing 90% of the 3000 employees with PL practices in 90 days. Positive energizers are defined as members of an organization who stimulate vitality, energy and motivation in others and who contribute to a positive, productive culture (Cameron, *in press*). Scores of virtuous practices, including gratitude walls, celebration videos, peer mentoring, contribution huddles, and congratulatory letters to families were launched by these positive energizers. The activities were not scripted but emerged from their attempts to spread positive relational energy. Performance indicators such

as employee wellbeing, quality scores, and revenues markedly improved after this challenge.

Three important conclusions have emerged from research on positive energy in organizations (Cameron, [in press](#)). The first is that people who are positive energizers are higher performers than others. The second is that positive energizers affect the performance of those with whom they interact. Performance accelerates markedly among employees in organizations, for example. The third is that the highest-performing organizations have three times more positive energizers than normal organizations, suggesting that in the time of the pandemic, PE and the positive energy it creates is a much-needed approach for workplaces to adopt (Cameron, [in press](#)).

Workplaces: antifragility

In addition to enabling positive leadership and positive energy in workplaces, the notion of antifragility can help institutions during this pandemic. Working towards antifragility helps contribute to both of these aims. Antifragile is the state of improving through disorder, disruption, and uncertainty (Taleb, [2012](#)) and can be considered on a continuum from fragile – unable to cope with the level of disruption and uncertainty – through robustness – able to withstand levels of disruption and uncertainty – to antifragile – improving through disruption and uncertainty (Taleb, [2012](#)). Williams ([2020](#)) suggests that antifragility differs from posttraumatic growth in that, rather than being a response that occurs *after* a challenging event, becoming antifragile is a *real-time process* that is proactive and intentionally used *during the crisis itself* as part of an employee's day-to-day work and routines. Framing antifragility as a positive process allows workplaces to actively build up the capacity to grow through disruption, making it a highly beneficial approach for leaders to adopt during COVID-19 and encourages workplaces to extend the system element of *purpose*.

During the coronavirus crisis, some companies have folded, others are still operating, and still others have benefited. This may in part be due to changes in market demands and customer availability, but it is also likely to be in part to where an organization sits along the fragile–antifragile continuum. Whether an employee, work team, or company is fragile, robust, or antifragile is the result of the interaction between the level of disruption they perceive in their environment and their capacity to cope with it. The smaller the gap between these two factors, the greater the level of antifragility. For example, in human systems, it is proposed that antifragility can be developed through an 'antifragile personality,'

comprising courage, attentiveness, knowledgeability and education, and a desire to learn and incorporate new knowledge. It is suggested that this personality can be developed at individual, group and institutional levels.

Drawing on principles from systems informed positive psychology (Kern et al., [2020](#); see section below on positive systems), Williams ([2020](#)) proposes that becoming antifragile is a dynamic, interactive process that occurs within a context and may comprise multiple perspectives or perceptions. On this basis, levels of fragility, robustness, or antifragility in an employee, work team, or company results from the interaction between the level of disruption they perceive in their environment and their capacity to cope with it. The smaller the gap between these two factors, the greater the level of antifragility. As such, an individual, team, or workplace may have varying levels of antifragility in relation to different challenges, depending on the perceived disruption and the motivation, ability, and support available (Williams, [2020](#)).

Williams ([2020](#)) proposes six empirically based guiding heuristics that leaders can use to foster antifragility in themselves and their work teams. Informed by neuroscience, psychology, and philosophy, the ROBUST principles (Williams, [2020](#)) draw from Stoic philosophy, cognitive behavioral therapy, and mindfulness. The acronym ROBUST stands for: Recruit the brain, Operate in reality, Break the negative – Build the Positive, Use intelligent risk, and Seek collective wisdom. The ROBUST principles recognize the value of positive failure (Arnott, [2013](#)), non-interventionism, and doing less (Smith et al., [1991](#)); the positive impact of realistic optimism (S. L. Schneider, [2001](#)); and adopting strengths-based perspective to people, projects, and possibilities (Cooperrider & McQuaid, [2012](#)). Looking beyond the short-term and ego-centered decision making, the antifragility principles advocate for leaders to adopt a benefit mindset through which they create the context and conditions for others to thrive (Buchanan & Kern, [2017](#)) and to let go of the need for control by creating a psychologically safe context that encourages experimentation, supports diversity of ideas, and builds trust in teams (Clark, [2020](#)).

Adopting the ROBUST principles can help leaders create the energy, attitudes, and mindsets to navigate the uncertainty and disruption created by COVID-19 more effectively, and with less stress and burnout (Williams, [2020](#)). For example, by 'operating in reality' (the 'O' of ROBUST), leaders learn to recognize unhelpful 'stories' they are telling themselves and identify what they can and cannot control to manage their energy and identify effective pathways forward.

Leaders can also use the ROBUST principles to support and enable antifragility in their teams, particularly when working remotely. For example, in 'building the positive' (the 'B' of ROBUST) leaders can encourage realistic, flexible optimism by focusing their team's attention on what is working well and how to create opportunities to increase the likelihood of achieving outcomes, whilst working within realistic boundaries and the constraints of the current situation. This can be done through individual role modeling by the leader, coaching team members one-to-one, by setting up team routines such as project progress reviews, and by embedding rituals such as sharing successes within the team. All these are possible within a virtual environment and will generate confidence, motivation, and connection within the team.

Given that the disruption and uncertainty of COVID-19 is likely to be felt in workplaces for the foreseeable future, applying the ROBUST principles to grow through antifragility is one way in which leaders and teams can emerge stronger from this crisis. Workplaces play an important role in enabling this by creating, facilitating and supporting learning and development opportunities at the individual leader and group levels.

Positive clinical psychology

As stated in the introduction of this paper, COVID-19 has given rise to a public mental health crisis across the globe (Brooks et al., 2020). Not surprisingly, there have been calls to alleviate the psychological distress experienced (American Psychological Association, 2020; Soklaridis et al., 2020). The nature of how mental illness and collective distress is experienced during a global pandemic and the move to telehealth for many have implications for how psychologists, psychiatrists, and therapists treat people during this crisis – and, more broadly, for the institution of clinical psychology.

The psychological rebuilding of individuals, who have spent long periods of time in social isolation, deprived of cultural, artistic, and social doses of nurturance (see the Arts and Culture: Positive Humanities section below), cannot be done by merely mitigating their symptoms. Instead, to deal with the global pandemic and its aftermath, positive psychotherapy (PPT) stands out as a vital psychological approach, given its triadic focus on: (a) symptom alleviation and trauma-focused processes; (b) treatments that understand and promote the social determinants of wellbeing; and (c) the steering of patients towards the possibility of posttraumatic growth without dismissing and minimizing pain and grief, thus, encouraging patients to explore the possibility of post-traumatic growth (Rashid & Seligman, 2018).

While growth has been a guiding force of psychotherapy for decades (Rashid & Seligman, 2018), the path and process to foster this growth have primarily been done by reducing symptoms (Weitz et al., 2018). Adopting PPT can be a catalyst for growth in numerous ways for the considerable number of patients who are seeking help during this pandemic. For example, a strengths-based approach may help to reduce the stigma and alienation that individuals encounter when discussing their problems because they can also discuss the aspects of themselves that are functioning well, thus, emerging from the therapeutic journey with a notion of being stronger. Second, spotting others' strengths has been shown to encourage people to ask others for help (see Skeffington et al., 2016), which may build help-seeking capacities in patients during COVID-19 and beyond. Third, knowing and using one's strengths can increase social competence and has been shown to improve quality of social relationships, enhance feelings of competence, and increase altruistic behavior (Frueh et al., 2001; Kashdan et al., 2006) – all of which may lead people to be more proactive and creative in finding ways to stay connected during COVID-19. Given the swath of research showing that social connection and support is a protective factor for wellbeing and a factor that promotes posttraumatic growth (Scrignaro et al., 2011), one can see how the adoption of PPT by therapists during this crisis is beneficial. Finally, strengths use has been shown to be related to more meaningful leisure activity (Frueh et al., 2001), which is highly relevant during the pandemic where many people have more spare time on their hands (see the Eco-connection section below).

Positive psychotherapy offers a unique opportunity for clinicians to expand their role from healers and helpers to also become growth consultants, thus adding to the *purpose* aspect of this system. Becoming a growth consultant changes the *interactions* between the clinician and client, which will be supported by the strength-based PPT practices (i.e. system elements) outlined above. In the context of COVID-19, using PPT techniques to serve the large numbers of people across the globe who are suffering pandemic-related mental ill-health is an example of where positive psychology, delivered through institutions (e.g., psychology clinics, schools), can help create collective wellbeing and growth outcomes.

Societally embedded positive psychology approaches

The sections above have outlined how positive psychology can be applied in families, schools, workplaces,

and clinical psychology settings to assist large numbers of people during COVID-19. This next section moves beyond the boundaries of institutions to consider three broader-reaching phenomena in society that can be seen through a positive psychology lens to boost both individual and collective wellbeing: (a) arts and culture; (b) eco-connection; and (c) wellbeing literacy. While the section on institutions called for positive change to be created through the deliberate introduction of PPIs, PL, and PPT, this section focuses upon phenomena that already exist in our wider society and, as such, is less about introducing something new into our institutions (e.g., a PPI) and more about encouraging people, families, schools, and communities, to utilize what is already available to them (e.g., work teams who are taking virtual museum tours as a bonding exercise; families who are getting out into nature for a daily walk).

Arts and culture: positive humanities

Arts and culture – referred to broadly as the humanities – are a widespread part of our society and have an impact on the wellbeing of individuals and groups within that society (Shim et al., 2019; Tay et al., 2018). Music, art, theatre, film, literature, philosophy, history, religion, and similar pursuits play central roles in the socialization and education of children, the leisure time of adults, and the cohesion of communities, nations, and society at large. Public health restrictions during COVID-19 have disrupted the way many people engage with the humanities; however, as indicated below, people are finding new ways to connect with arts and culture – demonstrating that the Positive Humanities are an important avenue through which to boost collective wellbeing.

The Positive Humanities are a new field of inquiry and practice concerned with understanding, assessing, and advancing the relationship between arts and culture and human flourishing (Pawelski, 2021). Early work in this area points to the role the humanities can play in wellbeing (All-Party Parliamentary Group on the Arts, Health and Wellbeing, 2017; Shim et al., 2020; World Health Organization, 2019) and suggests that engagement with the humanities facilitates a range of positive psycho-social processes, such as reflection, acquisition, immersion, socialization, and expression (RAISE), which build wellbeing in individuals, in groups, and across society (Shim et al., 2019; Thapa et al., 2020; Tay et al., 2018). Positive outcomes of these processes may include physiological states (e.g., positive affective reactions: Busch & Gick, 2012), psychological competencies (e.g., self-efficacy: Bandura, 1997; and integrative complexity: Driver & Steufert, 1969), and normative development

(e.g., social tolerance and civic engagement: LeRoux & Bernadska, 2014).

The pandemic has significantly altered the way we engage with the humanities. Restrictions on social gatherings have severely disrupted the creation, curation, and appreciation of many forms of arts and culture. In research being conducted by the Humanities and Human Flourishing Project (www.humanitiesandhumanflourishing.org) at the University of Pennsylvania's Positive Psychology Center, the majority of participants in a representative sample in the USA report having their engagement in arts and culture strongly or very strongly disrupted by the pandemic (Crone et al., 2021). These disruptions, however, have not prevented people from engaging in and benefiting from the humanities. Indeed, they have provided new opportunities for doing so. During lockdown, Italians emerged onto their balconies to sing together, and musicians across the world shared their talents to support their neighbors and thank healthcare workers (Taylor, 2020). Art museums quickly made images freely available online and offered virtual tours of their timeless treasures (Farago, 2020). Less noted, perhaps, but no less important, book clubs went online – or even started online – to connect readers intellectually and emotionally in spite of physical separation (Hunt, 2020).

According to research conducted by the American Academy of Arts and Sciences (2020) on a circumscribed number of humanities domains, respondents to a nationally representative USA survey reported engaging in an average of five humanities activities during stay-at-home restrictions. The most popular activity was watching shows with historical content, with more than two-thirds of American adults reporting doing so at least sometimes. Approximately half of adults reported engaging in the following activities at least sometimes during the lockdown: researching a history project of interest, reading fiction books, reading non-fiction books, watching shows with humanities content other than history, looking up humanities content online, sharing that content with others, and watching music or theater performances virtually. Similarly, an Australian survey of over 12,000 previous attendees of cultural events reported 70% of respondents having engaged in online arts and culture experiences during the pandemic (Australia Council for the Arts, 2020).

Emerging research suggests that the effects of this engagement on wellbeing may be significant. In a nationally representative survey of adults in the USA, using the humanities as a way of coping during the pandemic was positively associated with nearly all dimensions of wellbeing, from positive emotions to life satisfaction, from self-efficacy to optimism, and from

meaning and purpose to a sense of belonging and community (Crone et al., 2021). Furthermore, some of these wellbeing effects were stronger the more participants personally affected by COVID-19 engaged in the humanities. This interaction effect suggests that the humanities may provide a buffer against negative psychological effects of the pandemic by supporting wellbeing. This result is consistent with a UK study in a large community sample reporting widespread use of the arts as a means of regulating emotions during the pandemic (Mak et al., 2020).

The pandemic has not only disrupted ways in which people engage in the humanities, but also the livelihoods of artists, musicians, actors, and other creative practitioners, as well as the normal functioning of humanities institutions and industries. Given the importance of the humanities for wellbeing – and their special role in difficult times – one lesson from the pandemic is that societies need to find more stable ways of supporting humanities creators and providers.

Research in the Positive Humanities suggests that during a pandemic it is important to make time for arts and culture. Although more research is needed to better understand the relationship between arts and culture and wellbeing, engagement with the humanities may support individual and collective wellbeing by (a) providing a healthy respite from problems and anxieties brought by the pandemic; (b) facilitating the processing, understanding, and reframing of the rapid changes experienced during this time; and (c) perhaps most important of all, fostering deep connections with others even when physical distancing is necessary. To take advantage of these significant positive effects, individuals can intentionally make time to engage in their favorite forms of the humanities; families can continue to experience arts and culture together (when necessary, finding alternative ways of doing so, or even establishing new rituals of engagement); and schools, colleges, and universities can prioritize broad and equitable access to arts and culture (especially in light of the enduring, transformational effects to which exposure to the humanities in educational settings can lead: Crone et al., 2021). In these ways, participation in the humanities during the pandemic may provide robust opportunities for individuals and communities to learn from the past, cope with the present, and renew hope for the future – positive benefits crucial for societal flourishing.

Eco-connection

One key factor that can play a strong protective role for wellbeing during COVID-19 and is readily available to many people is that of nature (including green urban

spaces). Lomas (2019) uses the term ‘eco-connection’ to describe the quality and intensity of people’s connection to nature, a bond that comprises many different aspects, including physical, emotional, cognitive, and spiritual ties to the planet. Research on how people are coping with the pandemic has identified that ‘engaging with nature’ (e.g., walking in nature, exercising outdoors, or gardening in the backyard) is a common way people are coping during COVID-19, and is one of the best predictors of wellbeing. For instance, studying a population of 604 adults in Ireland during COVID-19, Lades et al. (2020) found that the most positive location was outdoors/nature and the top three activities (out of 24) on wellbeing were exercising, going for a walk, and gardening. Outdoor activity is associated with increased wellbeing in relation to COVID-19 and Lesser and Nienhuis (2020) survey of 1098 Canadian adults showed that all people regarded nature as important (with 65% of active and 60% of inactive people rating it as ‘very important,’ and only 11% rating it as ‘not important’). Moreover, higher levels of wellbeing were observed both among active people, relative to inactive people, and moreover among inactive people who *increased* their levels of outdoor activity (relative to inactive people who decreased it).

Such results are understandable in light of a wealth of research showing that being active outdoors offers added physical health and wellbeing benefits – over and above indoor exercise – for instance, providing myriad of forms of physiological, psychological, and even spiritual nourishment (see, e.g., Barton & Pretty, 2010; Thompson Coon et al., 2011 for systematic reviews). These range from physiological factors such as exposure to fresh air and natural light, to the calming and/or uplifting aesthetic qualities of the natural environment (Hug et al., 2009). Given these considerations, we have much to gain – personally and collectively – from cultivating a positive relationship with nature and greater eco-connection.

Conversely, there is much to lose from not doing so. Indeed, a *lack* of eco-connection may have contributed to the pandemic itself. Recent centuries have seen the emergence of a disconnected, extractive, predatory ethos, where nature is constructed as a resource to be exploited (Monbiot, 2017). Although this mode tends to be associated with Western nations, given the complex dynamics of globalization one can see it across the industrialized world where it has become hegemonic, reflected in the policies of many governments. Crucially, prominent publications like *Nature* and *Science* have reported that such a stance exacerbates the risk of pandemics (Tollefson, 2020). For instance, deforestation, encroachment upon undeveloped areas, and practices like factory farming increase people’s contact with

wildlife and livestock, elevating the danger of zoonotic viruses jumping species to humans (Dobson et al., 2020). Similarly, loss of biodiversity is thought to increase the prevalence of – and human contact with – species that host diseases transmissible to humans (e.g., Gibb et al., 2020).

Greater eco-connection during the global pandemic can take many forms, from outdoor engagement programs (Hackett et al., 2020) to initiatives on environmental literacy (Stables & Bishop, 2001). Some of these forms of course involve or intersect with the other arenas of interest here, from education to the arts. An illustrative example in that respect is provided by Robert MacFarlane and Jackie Morris's (2018) illustrated book *The Lost Words*. It features a wealth of nature-related words that have been disappearing from the languages of Britain, but which their work seeks to revivify, an approach that has been described as 'eco-pedagogical' (Moriarty, 2020). Encouragingly, campaigns have unfolded organically to ensure schools have copies in their library, with children embracing the project and producing their own art in response (Eyre, 2018). More personally, people can adopt Gesler's (1992) notion of therapeutic landscapes, or the Japanese practice of *Shinrin-yoku* ('forest bathing'; Park et al., 2009) by taking the opportunity to get out into nature whenever they are able to. Of course, some people have easier access to nature than others, but green urban spaces – i.e., 'open spaces of ground, partially or completely covered by vegetation' (Grigoletto et al., 2021, p. 264) – and especially local parks may also be effective, in that they afford at least *some* opportunity for people to engage with nature. Schools who are in a remote learning phase can set 'urban' assignments by having students leave their computer at home and go outside for the class on a treasure hunt to find things in nature that can be used in science, English and Art classes. Workplaces can institute 'walking meetings' where team members leave their home-based work station and connect via a team audio link so they the team meeting occurs while each member is walking their own a local park. Given that research indicates that even relatively brief periods spent in such environments (e.g., 30 minutes) can have a measurable positive impact on brain functioning (Olszewska-Guizzo et al., 2020), the simple suggestions to get students and employees into nature/green spaces during lockdown will be of benefit.

Beyond this pandemic, positive psychology itself has much to gain from greater appreciation of the dynamics of eco-connection, including by engaging and collaborating with cultures that excel in this area such as Japan (with its traditions and therapeutic practices around

Shinrin-yoku, for instance). Doing this will also help to address a broader criticism of psychology more generally around Western-centricity and the need for a better cross-cultural understanding and appreciation (Henrich et al., 2010).

Wellbeing literacy

COVID-19 is arguably one of the most prominent topics of conversation across the globe in 2020, whether this be at government level, through scientific studies, in the media, on social media, in work meetings, at school, within one's smaller circles, or with a stranger at the local store. Within these conversations, the impact of the pandemic on wellbeing (ours or others) is a common topic, as seen in social media (Koh & Liew, *in press*) and media outlets, with people talking about how the pandemic has caused them stress, fear, fatigue, and, on the upside, gratitude, perspective, and connection (Niemi, 2020).

When these conversations occur, we are drawing upon our wellbeing literacy. Wellbeing literacy, a relatively new concept in positive psychology, is intentional language use about the topic of wellbeing and intentional use of language to build the wellbeing of ourselves, others, and the world (Oades et al., 2020). Based on contemporary views of literacy, language is not autonomous; rather, it involves a user, in a context with intentions. Wellbeing literacy and the way we communicate about COVID-19 can have significant implications for wellbeing and growth individually and collectively.

A poignant example of how language use shapes our collective wellbeing is the debate that occurred about the term 'social distancing' compared to 'physical distancing.' Wasserman et al. (2020) assert that the terms 'physical distancing' and 'emotional closeness' are preferred to 'social distancing,' which can have detrimental effects, particularly for those already experiencing mental illness, isolation, or socio-economic challenges – a significant portion of the global population. This is one simple example of wellbeing literacy in action during the pandemic – mindful language use for the purpose of wellbeing.

Wellbeing literacy is conceptualized as a language use capability that constitutes what we *can be* and what we *can do* with language to build wellbeing. The focus on potentiality is consistent with assumptions of positive psychology. As a literacy, it involves multiple modes of communication – reading and writing, speaking and listening, creating and viewing. At a conceptual level, wellbeing literacy does not assume a circumscribed definition of wellbeing. This is because

the approach assumes a contextualist view of language, in which language can vary by context. However, when operationalizing the construct, it is important to consider the context or language community. For example, many psychologists may be interested in emotional wellbeing, whereas some health practitioners may be interested in physical wellbeing, and economists focus on economic wellbeing et cetera. Hence, whilst a formal conceptual definition of wellbeing literacy is provided, to measure wellbeing literacy definitions of wellbeing will vary depending upon context and domain. The capability model of wellbeing literacy (Oades et al., 2020) involves five necessary conditions: (a) knowledge and vocabulary about wellbeing; (b) skills of composing wellbeing language (i.e., writing, speaking, creating); (c) skills of comprehending wellbeing language (i.e., reading, listening, viewing); (d) sensitivity to context; and (e) intentionality (i.e., habit of intention to use language for the wellbeing of self, others and the world). By framing wellbeing literacy as a *capability*, this means that knowledge, vocabulary, and skills of wellbeing language use can be learned, and in the current COVID-19 crisis can therefore be used as a 'natural experiment' to raise the wellbeing literacy of our society at large.

One of the common experiences during the coronavirus pandemic has been the sense of loss that has arisen due to physical distancing restrictions and lockdowns. This is where wellbeing literacy can play a key role. Language use, by definition, is relational. Wellbeing literacy can play a role during the pandemic by using our communications to connect with each other and show we care. This may involve speaking to others about your wellbeing and listening to others about their stress. It may involve writing for others about issues of wellbeing or reading about wellbeing. Literacy involves multiple modes of communication beyond words, and hence also includes creating and viewing visual images. One warm-hearted example during the pandemic introduced by families in local neighbourhoods has been the placing of 'teddy bears' in windows as an act of love; exemplifying the creating (a visual display of bears) and viewing (looking at bears) parts of wellbeing literacy. A similar example is 'Spoonville,' which involves the creation of a cluster of colorful painted wooden spoons to resemble, for example, a village, for viewing, often online (Spoonville International, 2020). Both the bears and the spoons are examples of the intentional use of communication for the wellbeing of self or others, in this case adapted to the context of the pandemic.

If the population is to become better educated about wellbeing, it must do so through human relations (De Ruyter et al., 2020), and it is wellbeing literacy that is at the heart of this process. Oades et al. (*in press*) assert

that an opportunity exists amidst the crisis to change education broadly and, specifically, wellbeing and resilience education through the intentional use of language *about* wellbeing and *for* wellbeing, during times of adversity and change, such as the coronavirus pandemic.

A positive outcome from COVID-19 is the increased wellbeing literacy of our population and our policy makers. At the institutional and societal level, we are seeing more conversations and policy responses about wellbeing on account of COVID-19. Hence, there is both an opportunity and responsibility to help our institutions (e.g., media, government, schools) to enable further development of wellbeing literacy – the capability to be and do things with language for wellbeing. Now that the importance of wellbeing has been made prominent, its psychological and social drivers may become more strategically embedded in our public discourse, hence moving policies beyond the linear conceptualization of single disease agents such as the coronavirus to understand the multiple factors influencing current societal reactions (see the Positive Systems section below).

Language is all pervasive and therefore has the potential to have a widespread effect on our wellbeing during COVID-19. Families, schools, and workplaces can make more intentional use of their language to boost the wellbeing and posttraumatic growth of their members. For example, parents can ask their children to talk about the upside of the pandemic; workplace leaders can talk to their teams about the concept of antifragility and how the disruption can be used to grow stronger; school teachers can utilize online chat functions to provide a space for their students to talk about how they are feeling during remote learning. All these simple strategies involve mindfully talking about wellbeing and using language to entertain the possibility for growth past the pandemic.

In the future, greater prominence of social and behavioral scientists during the pandemic, alongside epidemiologists and virologists, will help to build a population that has a greater literacy about wellbeing and, thus, has greater adaptiveness in times of adversity to steer towards individual and collective growth.

The use of a positive systems approach and the role of positive psychology in supporting diversity, equity, and inclusion during COVID-19

This section of the paper stretches beyond a discussion of the intentional use of PPIs in institutions and making use of societal-level positive factors (Positive Humanities, eco-connection, and wellbeing literacy) to protect wellbeing and promote growth. While wellbeing and growth

are highly relevant to these next two topics, the discussion is also directed to the larger societal reactions seen during COVID-19 and how future systems and policy responses can utilize positive psychology to promote larger, more sustained societal change around other collective outcomes such as wellbeing and social justice.

Positive systems

The COVID-19 global pandemic has highlighted just how interconnected everything is, with the flow-on effects of the medical crisis leading to an economic crisis, a social crisis, and a psychological one for many (Buchanan & Grieg *in press*). That is to say that in 2020 we saw the 'system effect' in action. A systems-informed perspective suggests that individuals cannot be separated from the broader social and non-social systems that they are a part of (Kern et al., 2020). A system can be defined as elements that are interconnected in ways that create their own unified patterns of behaviors (Kim, 1999; Meadows, 2008). The parts are interdependent with one another, often connected by a common purpose (Kim, 1999). Systems include biological (e.g., the digestive system, the cardiovascular system), social (e.g., families, schools, local communities), cultural (e.g., capitalism versus socialism, religious systems, artistic systems), economic (e.g., market economy systems, command economic systems), and ecological (e.g., a forest, a desert, marine habitats) systems.

Marrying the systems approach with positive psychology, systems informed positive psychology (SIPP) seeks to incorporate principles from the systems sciences to explicitly address the complexities of human life, with the purpose of cultivating optimally functioning systems (Kern & Taylor, *in press*; Kern et al., 2020). From a SIPP perspective, the wellbeing of a system and its capacity for growth is impacted by each element and by how those elements interact with one another. For example, the Teacher Wellbeing section above that recommended how positive psychology could play a role by infusing wellbeing more strategically into schools (policy, pipeline, and professional development) is an example of adopting a systems perspective.

Through its explicit focus on complexity, a SIPP perspective can help provide insights on individual, collective, and governmental responses to COVID-19 worldwide, shining light on how individual and collective actions impact collective wellbeing. For instance, the USA experienced several waves of the coronavirus, with growing resistance to restrictions. American liberalism places individual rights – including the right to happiness – at the forefront, resulting in stronger resistance by many people in the country to government-

imposed restrictions that limit individual liberties (Bond, 2020; Fernandez & Healy, 2020). Individual wellbeing took priority over collective safety. And yet the unintended consequences were hundreds of thousands of deaths, disproportionately affecting the weak and powerless in society (Centers for Disease Control and Prevention, 2020), thus showing how one element of a system – people's beliefs and values – impacts other aspects of the system – such as protective behaviors and infection and mortality rates.

In contrast, as Australia experienced a second wave, strict restrictions were imposed (Premier of Victoria, 2020). Messages focused on the need to sacrifice personal happiness to protect the vulnerable. Individual liberties were suspended for the common good (Bond, 2020; Premier of Victoria, 2020). Drawing on systems-informed methods, potential scenarios and the impact of different decisions were identified and simulated, weighing the positive and negative impacts of different options. By the end of November 2020, COVID-19 cases and deaths were nearly eliminated (Worldometer, 2020). Collective action, supported by a system of supports, demonstrated resilience at the country level.

What lessons arise from this? First, we need to listen widely and deeply to different perspectives within the system. Positive psychology has traditionally focused primarily on the individual, but we need to see individuals within the systems in which they exist. Only by seeing the big picture can we identify the most optimal course of action. We need to consider what perspectives we listen to. Are we only listening to those with privilege and power? Who is excluded? A systems-informed perspective challenges us to reconsider issues related to equity, access, and personal freedoms. If our efforts are placing some people at a disadvantage, then it is not a well-functioning system.

Second, positive systems require responsibility. Responses to the pandemic clearly demonstrate the human tendency to escape responsibility. Individuals often blame government decisions. Governments are frustrated and often blame the actions of people. A SIPP perspective emphasizes the shared and collective responsibility of wellbeing. For example, Vietnam quickly contained initial and subsequent waves of the coronavirus; the success was most likely due in part to the collective nature of the culture, with the government taking responsibility to aggressively trace and contain cases, and individuals taking responsibility to protect themselves and others (Ivic, 2020).

We need to equip people with wellbeing skills that are feasible within the constraints of their situations. This is possible by considering multiple leverage points in the system – including the structures, feedback, and policies

that are developed at broader levels in a system, but also the underlying individual and collective beliefs, values, and mindsets (Meadows, 1999). Numerous positive psychology studies and practices can shift these deeper structures, such as developing high-quality connections (Dutton & Heaphy, 2003), inspiring moral elevation (Algoe & Haidt, 2009), activating positive energy networks (Quinn & Quinn, 2009), and reconsidering the questions that we ask (Cooperrider & McQuaid, 2012).

Diversity, equity, and inclusion

Across societies and cultures, individuals from socially marginalized groups (e.g., racial and ethnic minorities, women, low-income families, migrant workers, people who identify as LGBTQ+, people with disabilities) experience worse psychological, emotional, and social wellbeing as compared to socially dominant groups (e.g., Gjerdingen et al., 2000; S. M. Schneider, 2016; Slopen et al., 2016). Extant research on diversity, equity, and inclusion (DEI) has focused on reducing outcomes of ill-being in marginalized groups. In contrast, a positive psychological approach to DEI expands this work by considering how wellbeing can be actively fostered for marginalized groups, such as by leveraging their existing strengths and developing and harnessing assets within their environments (Cha & Roberts, 2019; Roberts & Creary, 2011; Rao & Donaldson, 2015; Warren, 2020; Warren et al., 2019; Wilder et al., 2016). Further, rather than painting marginalized group members strictly in terms of deficits, a positive lens acknowledges and builds on their strengths and agency.

Fostering wellbeing in marginalized groups is particularly crucial during the COVID-19 pandemic because it has exacerbated existing inequities, pushed individuals and families into situations of greater precarity, and disproportionately affected their health and psychological wellbeing (Warren & Bordoloi, 2020). For example, in the US, compared to white individuals, racial and ethnic minorities are suffering greater psychological health challenges due to the pandemic (Fortuna et al., 2020; Novacek et al., 2020). Social distancing and lockdowns that reduce the spread of COVID-19 are also increasing risk of domestic violence against women and children in many countries (Bradbury-Jones & Isham, 2020; Campbell, 2020). During such times, a positive psychological approach offers a critically important lens with which to explore factors that boost the strengths, supportive relationships, and wellbeing of marginalized individuals. Studies using this lens suggest that interventions – short term and long term, at the individual and institutional levels – sustainably improve the wellbeing of marginalized groups. For example, studies of

individuals from vulnerable groups have found that dispositional gratitude and grit (Bono et al., 2020) and being recipients of others' gratitude (Makowiecki et al., 2020) are supportive factors for psychological wellbeing during COVID-19.

Beyond positive factors at the individual level and relational factors like grit and gratitude, proactive public policy also plays an important role. In a systematic review of international research on the impact of epidemics/pandemics on low-wage migrant workers, Wang, Tian, et al. () found that long-term interventions that increase public consciousness of migrant worker rights were critical in fostering psychological wellbeing. Pacheco et al. (2020) study on worker wellbeing, particularly of racial minority workers, and Fortier's (2020) work on women and single mothers, highlight how supportive institutional structures such as employer-provided mental health services, job security, paid family leave, and publicly funded childcare make individual wellbeing interventions more effective. If the policy changes outlined at the beginning of this paper are sustained over time, they can serve not only to protect wellbeing but also to promote posttraumatic growth in marginalized groups who may be better supported in our society as a response to greater awareness being raised through this collective trauma experience, leading to more positive collective emotions, a stronger emotional climate, and more social support for DEI.

As the world moves forward through COVID-19, three directions hold promise for improving the wellbeing of marginalized groups. At the micro-level, individuals from socially dominant groups can leverage their relative power and privilege (Pasha-Zaidi et al., 2021), positive identity (Warren, Bordoloi et al., 2021), and strengths (e.g., values, Warren, 2020) to serve as allies to marginalized group members. For instance, recent positive psychological research shows that, to facilitate systemic change in systems, allies can serve as visible advocates for marginalized group members by voicing support, highlighting strengths of marginalized group members in influential settings, redirecting misplaced credit to marginalized group members, and investing sustained time and effort in long-range initiatives (e.g., Sekhon & Warren, 2020; Warren & Bordoloi, 2021; Warren, Sekhon et al., 2021). Additionally, allies can also provide interpersonal support to marginalized group members through strategies such as partnership in navigating biased social environments (e.g., Warren & Bordoloi, 2021). Such allyship behaviors reduce the burden on marginalized group members for being solely responsible for shifting systemic inequities and navigating biased interpersonal spaces alone. Further, allyship

interventions have been found to improve the wellbeing of not only marginalized group members but also of the allies through personal growth and work-family enrichment (Warren, Bordoloi et al., 2021).

At the meso-level, organizations can intentionally cultivate environments conducive to flourishing of marginalized group employees by investing in four key positive drivers found to support equity and inclusion – providing equitable opportunities, supports and rewards for strong job performance, facilitating intergroup social integration through creation of inclusive relational climates, implementing work-life balance programs to reduce non-work stressors, and encoding equity and inclusion matters into the organizations' ethical work practices (Warren et al., 2019).

Finally, institutions can go a step further beyond implementing system-wide equity and inclusion programs and initiatives by also evaluating their effectiveness using a strengths-based approach (e.g., measuring programmatic strengths, Wamue-Ngare et al., 2021; Warren, Donaldson et al., 2021). This enables institutions to examine the impact of their interventions while simultaneously building trust and reducing evaluation anxiety in fraught contexts, thereby generating the momentum, enthusiasm, growth-orientedness, and commitment necessary for sustainable change (Warren, Donaldson et al., 2021). These promising directions for research, policy and practice can enable us – across varying degrees of power and privilege, and at every level of analysis – to leverage a positive psychological lens in intentionally rebuilding a more diverse, equitable, and inclusive post-pandemic future.

Conclusion

At the time of writing this paper, the end of 2020, the COVID-19 pandemic is still in full flight with many countries across the world experiencing second, third, and fourth rounds of coronavirus clusters causing on going negative ripple effects individually, institutionally, and societally (Khan et al., 2020; Kupferschmidt, 2020; The Economist, 2020). The focus of the current paper was at the institutional level, following the logic that institutional interventions have wider reach than individual interventions and following research showing that microsocial networks (e.g., families, schools, workplaces) build collective wellbeing and foster collective posttraumatic growth by modelling the processes of positive adjustment to all group members.

A positive psychological approach was intentionally adopted in order to expand the crisis management/psychopathology emphasis currently present in the pandemic research (Burke & Arslan, 2020). Following

Bruining et al.'s (2020) call to investigate positive aspects of the coronavirus crisis, this paper presented evidence from existing publications for a range of positive outcomes present in institutions (e.g., family bonding, self-paced learning, work flexibility) and, more broadly, at the societal level (e.g., reduced pollution, policy changes, raised awareness of disadvantage). The evidence that positive outcomes are existing alongside the negatives outcomes of the coronavirus crisis affirms the heliotropic principle – that individuals and institutions have an inherent inclination toward positivity (Baker et al., 2003; Cameron et al., in press; Heaphy & Dutton, 2008). As stated by Soklaridis et al. (2020) during COVID-19, '[f]aced with uncertainty, it is common for people to seek positive solutions' (p. 135).

Prior research has found that positive approaches play an important role for individuals, groups, organizations, and communities experiencing some of life's most extreme adversity including war, violence, trauma, terrorism, illness, and oppression (Ahmed et al., 2004; Brunzell et al., 2018; Emmons & McCullough, 2003; Hoffer Gittell et al., 2006; Shoshani & Slone, 2016). Following this line of research, and adopting a systems perspective, the current paper explored how institutionally embedding a range of evidence-based PPIs together with utilizing three readily available positive societal-level factors (eco-connection, Positive Humanities, and wellbeing literacy) may be used to change the three components of the system (purpose, elements, and interactions) in order to support wellbeing and growth for families, schools, and workplaces during a pandemic.

Given the uncertainty, restrictions, and lack of control that institutions face, many of the PPIs suggested in this paper fall under the category of a 'micro-practice,' defined by Fessell and Cherniss (2020) as practices that only require a few minutes to implement. For example, the suggestion for parents to utilize the technique of savoring with their children to boost positive emotions during the day; starting an online student class with a brief gratitude activity; employees having team 'walking meetings' each in their own local parks but connected via their phones and the promotion of wellbeing literacy through intentional conversations about wellbeing during COVID-19. Some of the practices require more time to plan and undertake, such as appointing positive energizers in the workplace to engage in a range of actions that cultivate collective wellbeing (e.g., celebration videos, peer mentoring, contribution huddles) or setting up an online book club to connect reading groups across communities (positive humanities). Some of the suggestions in this paper involve longer-term change, such as cultivating antifragility in a work team, adopting a PPT approach in clinical

practice to help patients see and use their strengths, creating policy change, and continuing to raise awareness about the best ways to support marginalized groups.

Regardless of the amount of time taken to embed the interventions and practices, all can be used within institutions and all are relational in nature – pointing to their potential for collective outcomes. Moreover, the interventions and practices outlined in this paper, although seemingly minor, can have a big impact through the way they alter components of the system (i.e., elements, interaction, purpose), causing domino effects that lead to changes in collective emotions, values, and actions. For example, watching a Netflix series together as a family during lockdown (i.e., a Positive Humanities intervention) changes the family's *interaction pattern* not only during the time spent watching the show but also in conversations about that show at other times, which can potentially lead to a feeling of family togetherness. Another example might be the business that donates time and money to charities during COVID-19 who has therefore extended their *purpose*, which can create a collective meaning among their employees. These examples show how small changes embedded into institutions via PPIs can have a widespread impact (just as the small action of wearing a mask reduces the collective risks of virus transmissions).

There is no question that the COVID-19 global pandemic is a crisis of epic proportions, resulting in levels of devastation and distress that are yet to be fully understood; however, we must not lose sight of the beneficial outcomes that have arisen through this disruption or the potential for a more permanent positive future. The human capacity to rise above challenges must be nurtured at this time, and it is hoped that, by offering evidence-based, institutionally embedded and societal wide interventions, our paper helps contribute towards this capacity.

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