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Child Abuse & Neglect

journal homepage: www.elsevier.com/locate/chiabuneg

Brazilian Child Protection Professionals' Resilient Behavior during the COVID-19 Pandemic

Sidnei R. Priolo Filho^{a,*}, Deborah Goldfarb^b, Murilo R. Zibetti^c,
Carlos Aznar-Blefari^a

^a Universidade Tuiuti do Paraná, Curitiba, PR, Brazil

^b Florida International University, Miami, FL, United States

^c Universidade do Vale do Rio dos Sinos, São Leopoldo, RS, Brazil

ARTICLE INFO

Keywords:

Child Maltreatment
COVID-19
Psychological Resilience
Child Protection

ABSTRACT

Background: The COVID-19 pandemic deeply affected child protection professionals. One potential area of concern is whether and how the pandemic has dampened these individuals' ability to engage in the resilient practices that are so vital to their wellbeing.

Objective: Within the unique and understudied context of a developing economy facing the strain of an international pandemic, this study sought to expand our theoretical understanding of the individual and socio-ecological predictors of whether child protective services professionals engage in resilient behaviors.

Participants and setting: Three hundred and nine professionals working in child protection related fields (e.g., psychologists, social workers, professors, pediatricians, nurses, and other clinicians).

Methods: Participants were surveyed as to their demographics, current work conditions, their engagement in resilient behaviors, and potential individual and socio-ecological predictors of those behaviors.

Results: Both job support for and individuals' beliefs of the importance of resilient behaviors predicted their engagement in such behaviors.

Conclusions: Child protection professionals' resilience must be fostered by socio-ecological contexts, such as their workplace and employers, and additional supports are needed during the trying times of the COVID-19 pandemic.

1. Introduction

As the Coronavirus raged into a full-blown pandemic in 2020, professionals worldwide scrambled to adjust their working lives to the new realities of a restricted and often homebound world. Child protection professionals (CPPs; e.g., social workers, pediatricians, psychologists, lawyers) undertook the onerous task of transitioning traditionally face-to-face assessments, visits, and services to a remote format, while also supporting their clients, whose resources were already depleted, through these difficult times (Prime, Wade, & Browne, 2020). Understandably, concerns have been raised about the state of these working conditions, including whether the stressors of this worldwide crisis have decreased how frequently CPPs practice resilient behaviors.

* Corresponding author at: Universidade Tuiuti do Paraná, Programa de Pós-Graduação em Psicologia Forense, Rua Sidney Rangel Santos, 238, Curitiba, Brazil.

E-mail address: sdpriolo@gmail.com (S.R. Priolo Filho).

<https://doi.org/10.1016/j.chiabu.2020.104701>

Received 16 July 2020; Received in revised form 15 August 2020; Accepted 17 August 2020

Available online 4 September 2020

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Research has consistently shown that individuals who engage in resilient behaviors, such as attending to mental health and utilizing stress-reducing practices, are better able to adapt and respond to adversity (Liu, Reed, & Girard, 2017; Masten & Motti-Stefanidi, 2020; Masten, 2019). Little work, however, has considered these practices in a developing economy, such as Brazil's, and no study as to which we are aware has done so in the face of an ongoing pandemic. A crisis that has diminished agencies' financial resources to support resilient practices, impacted families' support from schools and daycare, and potentially dampened individuals' abilities to create space for self-care. In addition to potentially decreasing the availability of support, the pandemic further blurred the lines between work, family, and personal life, increasing the interdependent needs between those systems.

Brazil presents the ideal environment within which to consider how context and the pandemic intertwine to differentially affect professionals' practice. As a developing economy, Brazil's regions vary vastly as to the conditions within which the professionals work, including the level of support provided by their workplace for resilient practices, the socio-economic status of their locale, and the rates of child abuse. By surveying child protection workers throughout Brazil in the context of the Coronavirus pandemic, this study aims to provide a richer understanding of how the pandemic has impacted CPPs throughout Brazil and how their professional context predicts differences in the utilization of resilient behaviors. In so doing, these results will inform responses to this and other national and international crises.

1.1. Resiliency in the Face of Difficult Working Conditions

As the frontline response to child abuse and neglect, CPPs fairly consistently report highly stressful working conditions and frequently report feelings of burnout (Griffiths & Royse, 2017; McFadden, Mallett, Campbell, & Taylor, 2019; Miller, Donohue-Dioh, Niu, & Shalash, 2018). CPPs, under the best of conditions, navigate the challenges of empathetically responding to abuse allegations and familial distress, as well as supporting individuals facing poverty and vulnerability. Increasingly high caseloads and issues with overload are unfortunately typical for CPPs (Ellett, Ellis, Westbrook, & Dews, 2007; Griffiths, Royse, Culver, Piescher, & Zhang, 2017). These demanding work environments lead to frequent job turnover (Griffiths et al., 2017) and increase the risk of health problems such as burnout, anxiety, depression, and greater consumption of cigarettes and alcohol (McFadden et al., 2019; Sherwood et al., 2019).

Not all professionals reveal such negative effects. Indeed, many professionals are highly resilient even in the face of stressful working conditions (Masten & Wright, 2010). Resilience is considered a fundamental construct for understanding who overcomes adversity (Masten, 2018). Although definitions of resilience vary widely, resilience can be viewed as the integrated and interdependent systems that affect an individual's ability to adapt to challenging situations (Masten & Cicchetti, 2016). Some researchers have proposed that our understanding of who thrives and who suffers during trying professional times, such as a pandemic, can be best understood using models that highlight the numerous systems and factors working to support or dampen resilience (Liu et al., 2017; Masten & Wright, 2010).

1.2. Bolstering Resilience in the Socio-Ecological Context of Work

One model for understanding professional resilience is the Multi-System Model of Resilience proffered by Liu and colleagues (2017). This model argues that resilience is fostered through intra-individual, interpersonal, and socio-ecological factors. Intra-individual factors can include differences between individuals, including background or beliefs or attitudes. Socio-ecological factors, also termed external resilience, consist of the "larger formal and informal institutions that facilitate coping and adjustment representative of community resilience." This includes policies and procedures in place in the work environment as well as community support structures, which are sometimes measured via the Human Development Index (HDI).

Brazilian CPPs face a diverse set of socio-ecological factors that may impact resilience in their work and home environments. For instance, Brazilian cities range on the Human Development Index from 0.862, similar to France during the same period, to 0.418, similar to the Democratic Republic of Congo (Programa das Nações Unidas para o Desenvolvimento (PNUD), 2013; United Nations Development Programme (UNDP), 2019). Brazilian CPPs workers also face increasing pressures such as those regarding their own safety or from ensuring that cases of abuse and neglect are reported (Silva-Oliveira, Ferreira, Alencar, Ferreira, & Zarzar, 2020).

1.3. Present Study

Little work, however, has considered how these socio-ecological factors influence CPPs workers' engagement in resilience behaviors generally but also specifically within a context as trying as the Coronavirus pandemic. Even fewer studies have considered these predictors within a developing economy, such as Brazil's. Researchers, however, have consistently noted the need for a greater understanding of the role that working environments and professionals' beliefs have on the utilization of resilient behaviors (McFadden et al., 2019; Miller et al., 2018). Here, we attempt to address this gap in the literature.

To that end, this study had three distinct aims. First, to survey the current working conditions of Brazilian CPPs during the COVID-19 pandemic. Second, to analyze rates of resilient or self-care behaviors practiced by CPPs during the pandemic. Third, to consider both individual predictors, such as perceptions of the importance of resilient behaviors, and socio-ecological predictors, including support by one's job, work hours, and HDI index, of such behaviors. Further, we consider the relation between these predictors and three categories of resilience behaviors that reflect the three categories of predictors recognized by Liu and colleagues: individual (personal resilience behaviors), interpersonal (familial resilience behaviors), and socio-ecological (career or workplace resilience behaviors). These data will hopefully help enrich our understanding of the factors that promote resilience, even in the most difficult times and for professionals facing some of the most difficult working conditions, to bolster these individuals' ability to help better the lives of the

children and families that they support (Masten & Monn, 2015; Masten & Motti-Stefanidi, 2020).

2. Method

2.1. Participants

Three hundred and nine professionals working in child protection related fields (e.g., psychologists, social workers, professors, pediatricians, nurses, and other clinicians) completed at least 80% of the survey (269 females). On average, the professionals were approximately 40.26 years of age ($SD = 10.27$). We obtained a wide geographic spread with professionals from 86 cities and all five regions in Brazil. Most of the participants were from the South ($n=203$) and Southeast ($n=80$) regions, and 16 were from the other regions (i.e., North, Northeast and Central). This distribution is comparable to previous studies that report a significantly higher number of professionals in the Southeast-South axis, when compared to the other regions (Bastos & Gomes, 2014; Conselho Federal de Psicologia (CFP), 2020; Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP), 2019; Sheffer et al., 2018). Additional demographic details can be found in Table 1.

2.2. Measures

2.2.1. Demographics Questionnaire

The Demographics Questionnaire gathered information on participants' basic demographics, including their age, the years that they have worked in their profession, and their gender. Participants responded to questions regarding their occupation by stating which of the relevant child protection professions they practiced (e.g., psychiatrist, attorney, judge, and researcher).

2.2.2. Measure of CPPs' Perceptions of Work Conditions During the Pandemic

This measure was created specifically for this study to measure CPPs' perceptions of work conditions during the COVID-19 pandemic. Participants were asked about their weekly workload before and after the pandemic started, services available at their city, participants' perceptions of COVID-19's impact on both their professional community, and the number of child abuse cases.

2.2.3. Human Development Index (HDI)

HDI is a United Nations measurement of standard of living, life expectancy, and educational opportunities. The authors collected the Human Development Index for each city where the participants indicated that they worked (UNDP, 2019).

2.2.4. Professional Resilient Behaviors Measure

In this measure, the professionals were specifically directed to respond thinking about their role as CPPs during the COVID-19 pandemic. Participants scored 14 resilience practices as to their: (1) Importance: whether they thought that item was important (important/not important), (2) Level of Work Support: if their work supports, enables, or permits them to perform that item (yes/no),

Table 1
Participant demographic information.

Variable	Mean/Percentage	SD
Age	40.26	10.27
Gender (%)		
Female	89.4	
Male	10.6	
Professions (%)		
Health Professionals	17.5	
Legal Professionals	9.4	-
Education Professionals	38.2	-
Psychologists	27.2	
Social Workers	5.2	
Other	2.5	-
Professional experience		
Years of experience	14.17	10.19
Services available (% reporting that service is available)		
Family Health Program	83.5	-
Basic Health Unit	94.2	-
Hospital	80.9	-
Public Defenders	80.9	-
Social Welfare Center	90.3	-
Specialized Social Welfare Center	84.8	-
High School	91.3	-
University (public or private)	75.7	-

Note. Health professionals - includes physicians, nurses, speech therapists and physical therapists; Legal professionals - includes lawyers and child protective services professionals.

and (3) Behavior: if they performed that item or activity (yes/no). Three categories of resilient behaviors were measured: personal resilience (e.g., “Caring about my own mental health”; “Time available for hobbies/exercises/meditation”); familial resilience (e.g., “Time for family-work balance”; “Shared household tasks”); and career resilience (e.g., “Direct communication with work during the pandemic”; “Shared responsibility at work”).

2.3. Procedure

This research was approved by the Institutional Review Board prior to the start of the research study (approval number 32833920.3.0000.8040). CPPs were contacted about the possibility of participating in this study via several relevant-professional Facebook groups and snowball sampling (Baltar & Brunet, 2012). Participants received a general invitation that stated the goals of the research and that provided an anonymous link for participation. Participants were asked to share the invitation with their relevant contacts and through their own social media pages. Following Brazilian guidelines, no personal information related to participants was stored by the researchers and no financial compensation was provided for participation.

Data was collected during a time when the Coronavirus was still ongoing worldwide and was at a particularly heightened state in Brazil. For instance, during the time period in which the data was collected, the average number of daily cases was 36,070 and there were approximately 1,022 deaths per day. To ensure relative stability during a time of fluctuating health and legal conditions, data was collected during a fifteen-day time period ranging from mid-June to early July in 2020. During this time, laws regarding isolation and virus-based restrictions varied in Brazil based on the municipality. The majority of states, however, required social isolation and limited businesses to only those deemed as essential. Public adherence to those laws and guidelines was mixed, with social isolation ranging from 38.2% to 39.6% during data collection (InLoco, 2020), lower than the 60% (Aquino et al., 2020) to 70% (Canabarro et al., 2020) thought necessary to control the pandemic.

Participants who consented to take part in the study first completed the demographics measures. Order of the following measures was randomized between participants to ensure that there were not any order effects. Within each measure, the items were also randomized. Participants were thanked for their time and invited to engage in several exercises to help support resilience: watching a relaxation video, doing a crossword puzzle, or reading a paper by one of the authors about fostering children’s resilience.

2.4. Data Analytic Strategy

Preliminary analyses considered the variance and correlations between the key theorized and non-theorized variables using SPSS 22 (IBM Corporation, 2013). Next, we tested our model analyzing the effects of both intra-individual (i.e., level of importance) and socio-ecological (i.e., job support) predictors on reports of utilization of resilient behaviors during the pandemic (Fig. 1). To that end, we performed a Path Analysis assessing the direct and indirect effects of ratings of the import of the relevant resilient behaviors on the mean number of behaviors practiced. We also tested whether the individual predictor of importance was mediated by the socio-ecological predictor of job support. The effects of these predictors were tested on CPP’s reports of three categories of resilient behaviors (i.e., personal, familial, and career) during the COVID-19 pandemic. These three categories of behaviors mirror the three factors of resiliency set out by Liu and colleagues (i.e., individual, interpersonal, and socio-ecological).

To avoid the impact of non-parametric variables, confidence intervals (95%) for the estimated parameters and standard errors were presented by bootstrapping the sample (n=1000). For this analysis we used ML estimators and the following criteria for adjustment

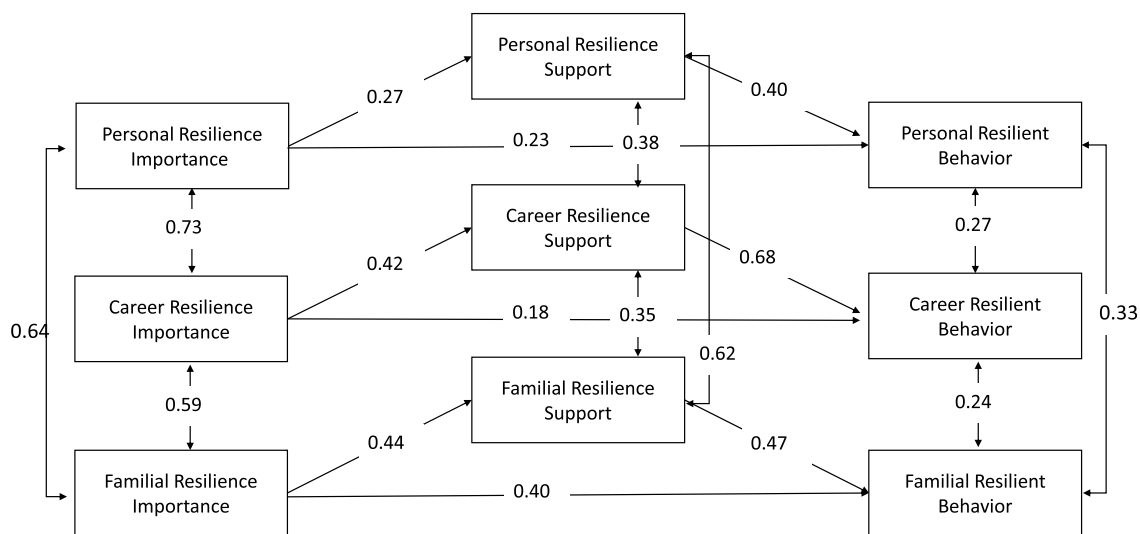


Fig. 1. Model of resilient behavior mediated by context support. Note: All paths and correlations are significant at $p < 0.01$.

Table 2
Professionals' working conditions during the pandemic

Variables			
Average hours worked per week	Increased	Same	Decreased
Before the pandemic	33.17 (13.52)	37.38 (14.81)	36.39 (13.00)
After the pandemic	48.22 (19.14)		20.83 (12.70)
Impact of quarantine	Negative	No impact	Positive
	270 (89.7%)	13 (4.3%)	18 (6.0%)
Number of child abuse cases after COVID-19	Increased	No change	Decreased
	86 (54.8%)	55 (35.0%)	16 (10.2%)
Do you conduct home-visits?	No, and it is not part of my work	No, but could/should	Yes
	197 (65.7%)	31 (10.3%)	73 (24.0%)

indices (CFI > 0.95; TLI > 0.95; RMSEA < 0.10 and SRMR < 0.10). For these analyzes, the Lavaan package (Rosseel, 2012) was implemented using the JASP program (JASP Team, 2020).

3. Results

We first present descriptive statistics concerning the participants' reports of CPPs' working conditions in Brazil during the pandemic (Table 2). Most, though not all, professionals reported a decrease in their work hours after the pandemic started. Those professionals reporting an increase in works hours primarily worked in either education, healthcare, or psychology (94.94%). Although the mean hours worked before the pandemic was not statistically significant between those who reported working more (vs. less) hours after the pandemic, a t-test revealed a significant difference ($t(184) = -11.56, p = 0.03$) in reported work hours between those professionals whose hours increased when compared to those who reported a decrease after the pandemic started (Table 2).

Most professionals stated that they could not tell if the number of child abuse cases had changed since the start of the pandemic (47.5%). Of those who opined as to an overall change, a majority (25.8%) said that there was an increase, 18.3% believed the numbers had remained stable, and a minority (5.3%) thought there had been a decrease. Although most CPPs reported that they do not conduct home visits (65.8%), a minority of participants (10.8%) reported that they normally do conduct or should conduct such visits but are not during the pandemic.

3.1. Resilient Behaviors Analyses

Initial correlations were run to test for relations between theorized and non-theorized variables (Table 3). HDI did not play a significant role in any of the key variables so it was excluded from further analyses.

Based on the theoretical model proposed by Liu and colleagues (2017) and Masten and Motti-Stefanidi (2020), we ran a path analysis utilizing the model shown in Fig. 1. The model was well-adjusted to the data ($\chi^2(18) = 34.21, p = 0.012$) and revealed satisfactory fit (CFI = 0.98; TLI = 0.98; RMSEA = 0.05[CI 90% 0.03-0.08]; SRMR = 0.04).

The parameter estimates for all of the variables, including the direct and indirect effects, are shown in Table 4. In this model, the intra-individual factor of importance directly predicted engaging in resilient behaviors across all three categories (e.g., personal, career, and familial). The effect of importance was also mediated by the socio-ecological context of work, such that work also played a key role in predicting utilizing resilient behaviors during a pandemic.

4. Discussion

Reflecting conditions felt by professionals throughout the world, CPPs within a developing country like Brazil consistently reported (almost 90%) a negative impact from COVID-19. The pandemic, however, has not had universally deleterious effects on the Brazilian

Table 3
Means, standard deviations, and correlations for key variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10
1. HDI	0.77	.51	-									
2. Career importance	5.46	1.18	-.07	-								
3. Career support	4.16	1.53	-.11	.45**	-							
4. Career behavior	4.20	1.42	.01	.49**	.76**	-						
5. Personal importance	3.76	0.76	.06	.73**	.35**	.34**	-					
6. Personal support	2.50	1.34	.07	.28**	.46**	.35**	.29**	-				
7. Personal behavior	2.70	1.18	.08	.30**	.23**	.35**	.32**	.48**	-			
8. Familial importance	3.20	0.93	-.09	.59**	.37**	.33**	.64**	.22**	.14*	-		
9. Familial support	2.42	1.30	-.11	.30**	.45**	.29**	.30**	.63**	.28**	.47**	-	
10. Familial behavior	2.70	1.09	-.10	.37**	.32**	.34**	.35**	.42**	.38**	.61**	.65**	-

* $p < 0.05$ ** $p < 0.01$. Min = Minimum; Max = Maximum. Career importance, support, and behavior range from 0-6. Familial and personal importance, support, and behavior range from 0-4.

Table 4

Parameter estimates for the path model of importance of resilient behavior mediated by workplace support

	Direct effect Std β	β 95% Bootstrap CI	Indirect Effect Std β	β 95% Bootstrap CI	Total effect Std β	β 95% Bootstrap CI	R^2
Career Importance	0.18	[.12 - .31]	0.29	[.25 - .43]	0.47	[.44 - .67]	0.60
Personal Importance	0.23	[.23 - .48]	0.11	[.11 - .24]	0.34	[.40 - .65]	0.26
Familial Importance	0.40	[.34 - .62]	0.21	[.17 - .32]	0.61	[.60 - .84]	0.54

child protection community. Indeed, even in the face of increased stressors, CPPs reported that they were still engaging in resilient behaviors. Similar to studies prior to the pandemic (Miller et al., 2018), CPPs engaged in moderate levels of self-care or resilient behaviors. Professionals whose workplace supported resilient practices were more likely to engage in these behaviors, across all three domains of resilience studied here (i.e., individual, family, and career). Indeed, a supportive work environment mediated the relation between beliefs of the import of the behavior and actual practice. These findings indicate that the workplace is a key factor in fostering CPPs' performance of adaptive behaviors.

Liu and colleagues' (2017) socio-ecological framework proposes that resilience is a continuous exchange between different systems (e.g., intra-personal, interpersonal, and socio-ecological) and that these systems can bolster or hinder individuals' adaptation to adversities (see also Masten & Motti-Stefanidi, 2020). Within our data, both intra-personal (beliefs of the importance of resilient behaviors) and socio-ecological predictors (job support) played a role in whether individuals engaged in resilient behaviors during the pandemic. These results are not without effect as resilient behaviors can lower stress, while also mobilizing adaptive systems during adverse times (Arnup & Bowles, 2016; Cull, Frintner, Starmer, & Leslie, 2019; García-Carmona, Marín, & Aguayo, 2019; McFadden et al., 2019; McKinley, Boland, & Mahan, 2017; Pradas-Hernández et al., 2018; Rosenberg, 2018).

Our results further bolster Liu et al.'s (2017) model's placement of an individuals' resiliency within the context of their community. Indeed, here it was not simply the individual's views of importance that mattered in predicting resilient behaviors but also the workplace's support for such behaviors. Both individual and socio-ecological factors predicted resilient behaviors across all three potential contexts: personal, familial, and career. Providing additional empirical support for the theory that systems are interdependent on one another and can differentially impact resiliency.

Although the predictors were significant for engaging in such practices for each of these categories, workplace (or career) support had the largest effect on practicing career resilient behavior. These results bolster the idea that work support is crucial to the development of resilient behavior. Changing work conditions to promote time and resources to enable professionals to engage in resilient behavior should be a priority during and after the pandemic. Public policies aimed at promoting better working conditions and increasing workplace support for resilient behavior must be at the forefront of advocacy for CPPs.

Our findings do not imply that a singular resilience policy or practice would benefit all professionals. For instance, despite the benefits of Johnson, Emmons, Rivard, Griffin, and Dusek's (2015) mindfulness trainings on lowering professionals' depression and anxiety, the authors acknowledge that intra-individual differences may exist regarding the success of this intervention (see Zhu, Wekerle, Lanius, and Frewen (2019) finding that trauma-related symptoms predict increased distress during meditation). Indeed, as all of our measures, other than HDI, are self-report, we cannot ascertain whether it is the actual levels of workplace support that predict CPPs' practice of resilient behaviors or if it is the individuals' interpretation of that support. In other words, two CPPs in the same workplace may differently interpret cues of support and, resultingly, engage in different levels of behavior.

Instead of proscribing a set policy for either the workplace or even for CPPs, the COVID-19 pandemic provides an opportunity for researchers and professionals to come together to better understand the diverse needs of the professionals who help abused and neglected children. The pandemic's challengin context is a springboard for ongoing discussions about front-line professionals' working conditions, including how the pandemic affects their mental health (Fiorillo & Gorwood, 2020; Golberstein, Wen, & Miller, 2020; Greenberg, Docherty, Gnanapragasam, & Wessely, 2020; Pfefferbaum & North, 2020; World Health Organization (WHO), 2020). CPPs are asked every day to balance an incredible number of emotionally taxing tasks. Here, we show that the environment within which they work is a key factor in ensuring their stability and success.

Of note, HDI did not correlate with any of the variables of interest in this model. This may be because organizations are leveraging resources that are generally available online or creating national infrastructures that span socio-economic context, such as mindfulness training (Johnson et al., 2015). Due to the limitations of this study, such as not having data on the funding support for participants' individual places of work (e.g., working in a rich city does not equate with a well-funded nonprofit), we advise extreme caution in interpreting these findings. Future research is critical to understanding the role of HDI in the work life of CPPs and the practice of resilient behaviors.

In addition to those noted above, these findings must be couched in a number of key limitations. First, despite having variability in the cities and regions in which participants work, further sampling might be necessary to recruit participants in smaller cities and Northern regions. CPPs in isolated communities may have access to fewer resources and increased caseloads. Second, our study cannot draw conclusions about how engaging in resilient behaviors impacts the professionals and the children they support (Palma-García, Gómez Jacinto, & Hombrados-Mendieta, 2018), both during the pendency of this pandemic and after it concludes. Third, we do not consider here many aspects of the work environment that may play a role in professionals' success, including provision of necessary protective gear during a pandemic, job flexibility, and open and honest communications about mental health. Indeed, studying the

ongoing provision of these supports (e.g., beyond a t-shirt giveaway or a singular day of recognition) may be vital to understanding how the pandemic and other similarly stressful environments differentially affect whether professionals engage in resilient behaviors. Finally, this research did not explore a variety of intra-individual predictors of work-related beliefs, engagement, and expectations. Future research could greatly expand on understanding how these factors may shape either perceptions or practice of CPPs in the workplace.

CPPs stand on the frontlines of defense for families in the greatest states of crisis. These professionals' places of work can buffer them from secondary trauma by supporting resilient behaviors. Our study shows that even in times of international crisis, such as the COVID-19 pandemic, work support for resilient behaviors matters, potentially over and above community resources as indexed by HDI. Although this study provides preliminary evidence for bolstering professional support to increase resilient behavior, future research can deepen the understanding of resilience systems (individual, family, and work-related) on decreasing burnout. This can help ensure these incredibly hard-working professionals can continue to provide the care that these children and families so desperately need.

Declaration of Competing Interest

The authors report no declarations of interest.

Acknowledgments

The authors thank the professionals for taking time during the pandemic to participate and for their continuous efforts to protect children and families during these arduous times. We also want to extend our thanks to Bárbara Moura, Bianca Correia, Jackeline Santos and Thaisy Sieben for their contributions towards social media distribution.

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