

Taking care of the caregivers: The moderating role of reflective supervision in the relationship between COVID-19 stress and the mental and professional well-being of the IECMH workforce

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Abstract

The present study examined the relationships between COVID-related stress, mental health and professional burnout in the infant and early child mental health (IECMH) workforce and examined reflective supervision and consultation (RSC) as a potential protective factor in the context of COVID-related stress. Participants included 123 adults ($n = 121$ female, modal age range 30–39 years) in the TN IECMH workforce (mean years of experience = 13.6 years) surveyed in June/July 2020. Sector representation was quite varied (home visiting, child-care, child welfare, early intervention). Results indicated the majority (63%) of the sample was caring for someone else (e.g., child or elderly person) while working at home, 46% of the sample had depression symptoms (18% in the moderate-severe range), and 75% of the sample had anxiety symptoms (33% in the moderate-severe range). Higher COVID stress was associated with higher internalizing symptoms and burnout levels and this relationship was mediated by self-care behaviors such that the more COVID stress one reported, the fewer self-care behaviors they engaged in, and the higher the risk for internalizing and burnout. Finally, the pathway from COVID stress to self-care behaviors was moderated by RSC. IECMH professionals who received less than 1 year (or no experience) of RSC showed a significant decrease in self-care behaviors during times of low, average and high levels of COVID stress compared to those who received 1 year or more of RSC. Implications for both policy and practice will be discussed.

KEYWORDS

burnout, COVID-19, infant and early childhood mental health, reflective supervision and consultation, self-care, stress, workforce

1 | INTRODUCTION

“Do unto others as you would have others do unto others.”

(Pawl & St. John, 1998)

The field of infant and early childhood mental health (IECMH) emphasizes relationship-based practice and the notion that *how you are* in relationships is just as important as what you do (Pawl & St. John, 1998). IECMH programs often encourage caregivers (e.g., parents, early

childhood educators) to take care of themselves so that they can take better care of babies or young children. In the context of parenting, IECMH providers are asked to create a safe and nurturing environment for the parent so that the parent, in turn, is better able to create that same space for their child (A. M. Tomlin et al., 2009). IECMH providers recognize that a parent cannot always remain calm, curious, regulated and attuned with their young child if they are not well physically or emotionally (Huber et al., 2016; Rosenblum et al., 2017). This principle also applies to the IECMH provider in that they are not expected to hold a regulated and calm space for the parent if they are experiencing their own physical and emotional challenges.

Given the high rates of burnout and turnover in the different sectors (e.g., child welfare, home visiting, child care) that make up the IECMH workforce, it is essential to take care of our IECMH providers as they work on the front lines serving infants, young children, and families, many of whom have complex needs (Frosch et al., 2018). The stressful and emotionally laden nature of IECMH-based work is likely exacerbated in the context of the COVID-19 pandemic (Hamouche, 2020), and the need to take care of our workforce is essential, now more than ever. The present study seeks to examine the impact of COVID-related stress on general stress, anxiety, depression, and professional burnout in the IECMH workforce. Further, the present study will examine the role of self-care behaviors as a possible mechanism through which COVID-related stress impacts provider well-being and examine reflective supervision and consultation (RSC) as a professional resource that is associated with lowering the detrimental impact of COVID-related stress on self-care.

1.1 | Risk for burnout in the IECMH workforce

Burnout is an emotional state characterized by emotional and physical exhaustion, feelings of detachment toward others, and perceptions of low accomplishment (Brotheridge & Grandey, 2002). Burnout and turnover rates are high within the IECMH workforce (Frosch et al., 2018; Johnco et al., 2014). Unique aspects of the IECMH field including systemic issues, low compensation, and emotionally challenging work which collectively contribute to higher stress, increased burnout, and high turnover rates (Frosch et al., 2018; Johnco et al., 2014). This increased stress is not limited to the workplace as it also impacts personal aspects of IECMH workers' life, partly due to chronic exposure to strong emotional experiences that compound with personal day to day stress (Baumgartner et al., 2009; Frosch et al., 2018; Many et al.,

2016; Neilsen Gatti et al., 2011). Early interventionist workers are particularly vulnerable to increased exposure to community violence and trauma (Neilsen Gatti et al., 2011). Witnessing such violence and engaging in emotionally evocative experiences may activate aspects of their own emotional histories (A. A. Tomlin et al., 2016). Further, the struggle for IECMH workers to balance their own emotional reactions with the emotional needs of the families they serve adds an additional layer of stress to a field already vulnerable to burnout (Bernstein & Edwards, 2012; Frosch et al., 2018; A. A. Tomlin et al., 2016). The intensity of emotion based work combined with increasing organizational demands, high caseloads, and low perceived value for services provided, creates a perfect storm for the development of compassion fatigue and burnout for the IECMH worker (Faulkner et al., 2016; Frosch et al., 2018, 2019; Neilsen Gatti et al., 2011). For instance, nearly half of child welfare workers report symptoms of compassion fatigue (e.g., increased emotional exhaustion, depersonalization, and diminished personal accomplishment; Johnco et al., 2014). Unresolved burnout and compassion fatigue directly affect staff absenteeism, job satisfaction, and turnover rates, which in turn result in diminished quality of services provided to families (Bernstein & Edwards, 2012; Frosch et al., 2018; Salloum et al., 2014). IECMH workers are expected to adapt to the changing needs of the families they serve and the community they are a part of; however, that can present as an impossible task during periods of national and global unrest (e.g., COVID-19 pandemic).

1.2 | COVID and its impact on the IECMH workforce and general mental health

Since the onset of the COVID-19 pandemic, several aspects of society have been negatively impacted including healthcare, education, the economy, and the employment rate, with vulnerable populations being disproportionately affected (Khazanchi et al., 2020). For instance, families of color, those of low economic status who have less access to resources, and those with greater trauma-related experiences are reporting higher rates of psychological and financial stress (Gassman-Pines et al., 2020). The IECMH workforce provides help/assistance to these vulnerable families and must navigate their own pandemic-related concerns (e.g., safety) while quickly adapting to the rapidly changing systems, policies, and methods of care (Choi et al., 2020). Preliminary research has shown negative psychological impacts caused by COVID-19 on healthcare workers (Greenberg et al., 2020) and general employees (Hamouche, 2020) who work with vulnerable individuals. The nature of the IECMH

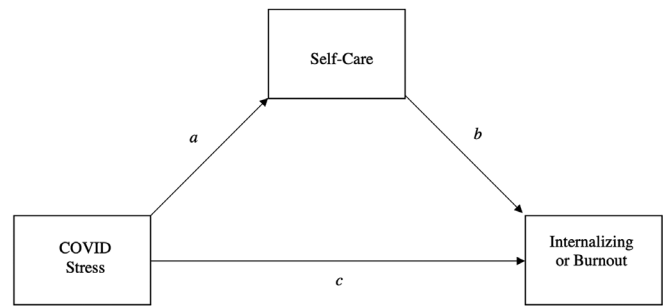
providers' work in supporting vulnerable populations in combination with their own pandemic stress, creates a higher risk for potential mental health difficulties and burnout. As such, now more than ever, it is essential to consider the possible areas to intervene between COVID-19 stress and potential mental health outcomes.

1.3 | Importance of self-care in reducing burnout and mental health difficulties

Self-care refers to an individual's ability to take part in tasks/activities aimed at improving health and well-being (Eaves et al., 2020; Richards et al., 2010). Engaging in self-care behaviors is closely related to increased compassion satisfaction, decreased feelings of burnout, and a greater sense of well-being (Alkema et al., 2008; Griner, 2013; Hricova et al., 2020). Further, practices of self-care may help to prevent negative outcomes and impairment for mental health providers (Hricova et al., 2020; Richards et al., 2010). More specifically, psychological self-care (e.g., maintaining healthy relationships, positive thinking, enhanced emotional control) may prevent emotional exhaustion and depersonalization while increasing personal accomplishment (Hricova et al., 2020). Self-care appears to primarily decrease burnout and increase well-being through stress reduction (Rupert & Dorociak, 2019). Further, self-care is the most effective at reducing stress and burnout when practiced regularly and not specifically in times of high stress (Rupert & Dorociak, 2019). While mental health providers generally value self-care and are aware of its benefits, significant barriers including time, workplace, and caregiving demands may interfere with providers' efforts to engage in self-care behaviors (Eaves et al., 2020). As such, suggesting self-care alone is likely an insufficient intervention to protect our IECMH workforce from burnout.

1.4 | Reflective supervision and consultation as a protective factor for the IECMH workforce

One way that the IECMH field has worked to take care of its providers is through the provision of RSC. RSC is a key tenet in IECMH practice as it is meant to be a safe and collaborative space in which the provider is able to slow down, reflect, and feel supported (Eggbeer et al., 2007; Gilkerson, 2004). Personal connections and strong supervisory relationships can help curb off the negative psychological impacts that arise from work-related stress (Johnco et al., 2014) and over time, a mutual alliance and a "relationship to learn" is established within RSC which



Note. Model 1 had Internalizing as the outcome. Model 2 had Burnout as the outcome.

FIGURE 1 Model 1 and Model 2 simple mediation

allows for a safe environment for the provider to share any thoughts, feelings and/or observations related to the work they do (Frosch et al., 2018). One essential element of RSC is the parallel process in understanding how "relationships affect and are affected by other relationships" (Alliance for the Advancement of Infant Mental Health & Michigan Association for Infant Mental Health, 2018, p. 5). This emphasizes the important process in which the provider takes care of their own needs (e.g., self-care) in order to better serve others. RSC helps to create a holding space in which the provider is encouraged to do what they need to take care of themselves (e.g., self-care) so that they are better able to hold and take care of others in their work. In fact, RSC has been associated with greater self-efficacy, job satisfaction, professional development, and ability to cope with job-related stress (Frosch et al., 2018). With the onset of the pandemic, new challenges have emerged for both the families IECMH providers serve and for the providers themselves; therefore, RSC is likely needed now more than ever to help manage these additional challenges caused by the pandemic.

1.5 | Present study

The present study seeks to examine the impact of COVID-related stress on general stress, anxiety, depression, and professional burnout in the IECMH workforce across the state of TN. The first aim is to document the types of COVID-related stressors faced by the IECMH workforce early in the pandemic (June/July 2020) and to describe the rates of anxiety, depression, and professional burnout at that moment in time. Further, the present study will examine the role of self-care behaviors as a possible mechanism through which COVID-related stress impacts provider well-being and examine RSC as a professional resource that is associated with lowering the detrimental impact of COVID-related stress (see Figure 1). It is hypothesized that the more COVID-related stress one reports, the less likely they will be to engage in self-care

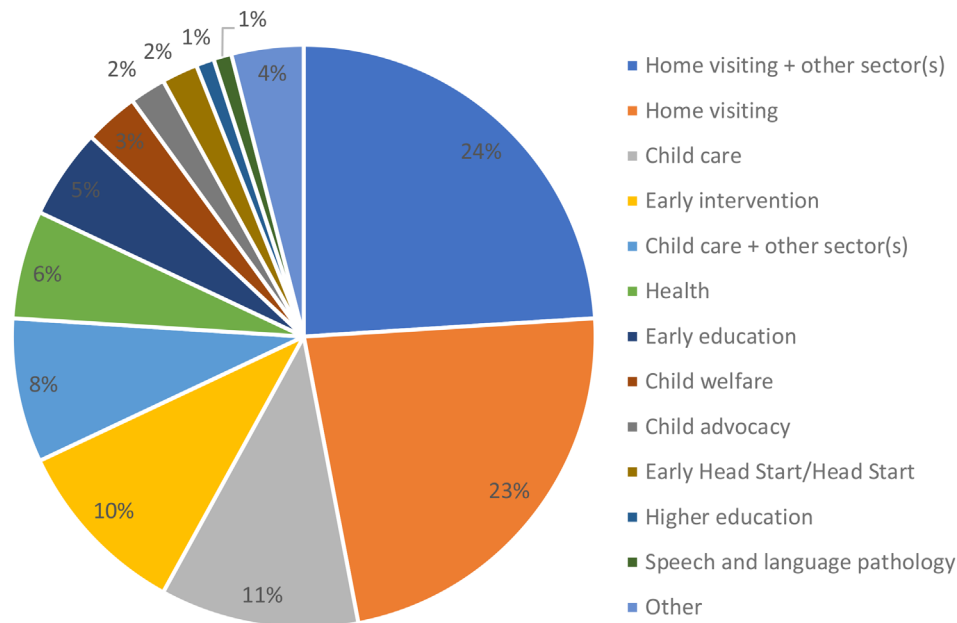


FIGURE 2 Breakdown of IECMH sectors

behaviors. That reduction in self-care behaviors, in turn, will put them at greater risk for internalizing symptoms and job burnout. Lastly, it is hypothesized that receiving RSC will be associated with a decrease in the strength of the relationship between COVID-related stressors and self-care behaviors.

2 | METHODS

2.1 | Participants

The study included 123 participants in the IECMH workforce that were recruited across the state of TN. Nearly all of the participants were female (121 females, two preferred not to answer) and were between the ages of 18–69. Of the sample, 81.2% identified as White (Caucasian/European American), 12.3% as Black or African American, 2.5% as Latino/a or Latin American, 1.6% as Multi-ethnic, .8% as Asian or Pacific Islander, and 1.6% preferred not to answer. The range of IECMH workforce experience was between 0 and 42 years ($m = 13.6$ years). The sample consisted of varied professions which included 24% home visiting and at least one other indication (e.g., child welfare, family advocacy, early intervention), 23% home visiting only, 11% child care, 10% early intervention, 8% child care and at least one other indication (e.g., child welfare, early education), 6% health, 5% early education, 3% child welfare, 2% child advocacy, 2% Early Head Start/Head Start, 1% higher education, 1% speech and language pathology, and 4% other (See Figure 2).

2.2 | Measures

2.2.1 | Pandemic stress index

The Pandemic Stress Index (PSI; Harkness et al., 2020) was used to assess total COVID-19 stress using a yes or no answer format. The measure asked, “Which of the following are you experiencing (or did you experience) during COVID-19 (coronavirus)?” Example items include “Not having enough basic supplies (e.g., food, water, medications, a place to stay,” “Fear of getting COVID-19,” and “Personal financial loss.” In the present study, total pandemic stress was computed as the sum of all of the 16 possible COVID stressor items¹ and internal reliability was good ($\alpha = .82$).

2.2.2 | Well-being

The COVID-19 Needs and Response measure developed for this study was used to assess personal and professional needs in the time of the COVID-19 pandemic using a 10-point Likert scale (0 = Struggling with my well-being through 10 = My well-being is strong). Current well-being was assessed in the midst of a COVID-oriented survey using a single question: “How would you rate your current well-being?” The present study used a participant’s score

¹ Given the newness of this measure and several other measures used in this study, we offer specific measure item details for all new or non-published measures in the Appendix.

on this single item question to indicate current well-being (Abdel-Khalek, 2006).

2.2.3 | Perceived stress scale

The Perceived Stress Scale (PSS) is a 10 item self-report questionnaire used to measure stress using a five-point Likert scale (0 = Never through 4 = Fairly often). An example item is “In the last month, how often have you been upset because of something that happened unexpectedly?” The PSS has been shown to have good reliability and validity (S. Cohen & Williamson, 1988). In the present study, the total stress score was used and the internal consistency was good ($\alpha = .87$).

2.2.4 | Self-care behavior questionnaire

The Self-Care Belief and Behavior Questionnaire (SBBQ) is a 27 item self-report measure used to measure self-care using a five-point Likert scale (0 = Never through 4 = Very often). This is a measure currently in development by this research team and was developed using the six life domains proposed by Butler et al. (2019)—physical, professional, relational, emotional, psychological, and spiritual—and the Self-Care Assessment (Saakvitne et al., 1996). The SBBQ was also reviewed and rated by Lisa Butler, a self-care researcher. Within the SBBQ, self-care was defined as “any activity we do deliberately in order to take care of our mental, emotional, and physical health.” There are two main subscales: Self-care Beliefs and Self-care Behaviors (e.g., “When I feel stressed, I do healthy things that make me feel better.”). In the present study, the 15 item SBBQ Behavior subscale was used and internal reliability was good ($\alpha = .89$; see Appendix for specific items).

2.2.5 | Professional quality of life

The Professional Quality of Life (ProQOL) is a 30 item self-report measure used to assess ProQOL using a five-point Likert scale (1 = Never through 5 = Very often). An example item is “I feel worn out because of my work as a helper.” The ProQOL has good reliability and validity (Stamm, 2010). In the present study, the 10 item Burnout subscale was used and internal reliability was good ($\alpha = .82$).

2.2.6 | Internalizing symptoms

The following measures were used to assess internalizing symptoms. The Center for Epidemiologic Studies Depres-

sion Scale (CES-D) is a 20 item self-report measure used to assess depressive symptoms using a four-point Likert scale (0 = Rarely or none of the time [less than 1 day] through 3 = Most or all of the time [5–7 days]). An example item is “During the past week, I was bothered by things that usually don’t bother me.” The CES-D has been shown to have good reliability and validity (Radloff, 1977). In the present study, the total depression score was used and internal reliability was excellent ($\alpha = .91$).

The General Anxiety Disorder-7 (GAD-7) is a seven item self-report measure used to assess anxiety symptoms using a four-point Likert scale (0 = Not at all through 3 = Nearly every day). An example item is “Feeling nervous, anxious, or on edge.” The GAD-7 has been shown to have good reliability and validity (Spitzer et al., 2006). In the present study, the total anxiety score was used and the internal consistency was excellent ($\alpha = .913$).

Given the high correlation between total depression and anxiety symptoms ($r = .79$), an internalizing symptoms composite score was calculated by converting both the CES-D and GAD-7 total scores into z -scores and then averaging the scores, resulting in a single z -score for internalizing symptoms.

2.2.7 | Reflective supervision/consultation

Reflective supervision was assessed in the demographics section with the single-item question “Do you receive reflective supervision or consultation?” Response options include 0 (No), 1 (Yes, for less than 1 year), or 2 (Yes, for more than 1 year).

2.3 | Procedure

This study was approved by the Institutional Review Board of East Tennessee State University. Participants were recruited from Listservs from the Association of Infant Mental Health in Tennessee (AIMHiTN) and relevant organizations who reach the IECMH workforce (e.g., state departments, TN Commission on Children and Youth). The recruitment email that was distributed outlined the study aims, eligibility criteria, and access to the survey link. At the start of the survey, participants provided electronic consent and were made aware of the risks and benefits, and given the option of whether or not to participate. Once consent was obtained, participants completed the brief electronic survey. After completion of the study requirements, participants had the opportunity to be entered into a raffle for a \$20 Amazon electronic gift card. All data was collected during June or July, 2020.

3 | RESULTS

3.1 | Preliminary analyses

Bivariate correlations between continuous study variables are presented in Table 1 with means, standard deviations, and ranges of these variables presented in the diagonal. All major variables were correlated in the expected direction with effect sizes ranging from medium ($r = .3-.4$) to large ($r \geq .5$); (J. Cohen, 1988). Given the lack of established psychometric properties for the PSI, we included a few measures to help to increase our confidence in the use of the PSI total COVID-19 stress score. Specifically, we included a measure of current well-being (single item developed for the present study) and general stress (psychometrically validated PSS) and bivariate correlations between the PSI total COVID-19 stress score and those indicators were significant and in the expected direction ($r = -.49$, $r = .49$, respectively). Of note, we acknowledge the limitations of using a single item measure of well-being and are rely heavily on the face validity and internal consistency of the COVID-19 stress score from the PSI to help strengthen our confidence in its use in the present study while the measure continues to undergo validation.

To examine whether there were significant differences in study variables between professional sectors, agency designation was simplified into three broad categories: home visiting, child care, and other (see Table 2 for agency/sector designations by category). This grouping was then used to examine whether there were mean differences between main study variables by sector. There were significant differences in RSC categories by sector designation $X^2(4) \geq 21.60$, $p < .001$ such that individuals who work in home visiting reported greater

longevity in RSC than individuals who work in child care or other IECMH fields (see Table 2 for percentages). Univariate Analysis of Variance (ANOVA) tests revealed no significant differences across sectors for any of the main study variables (X = total COVID-19 stress, M = self-care behaviors, W = RSC, Y_1 = internalizing symptoms, Y_2 = professional burnout).

Regarding RSC experience, 32% of the sample reported no RSC experience, 14% reported some (<1 year), and 54% reported having RSC for 1 year or more. ANOVA tests revealed no significant mean level differences based on RSC experience on COVID-19 stress, self-care behaviors, or professional burnout. There was a significant effect of RSC experience on internalizing symptoms [$F(2, 97) = 3.72$, $p = .03$] and Tukey's post hoc analyses indicated that individuals who have never received RSC reported higher levels of internalizing symptoms compared to individuals who had received at least 1 year of RSC ($d = .55$, $p = .031$). Of note, the difference between the no RSC group and the group that had RSC for less than a year was non-significant ($p = .12$), likely due to sample size in the latter group ($n = 14$), but visual inspections of the means indicated notable differences so effect size was still computed ($d = .60$). Finally, there was no significant difference in internalizing symptoms between individuals who had less than a year of RSC versus those who had more than a year of RSC ($d = .07$, $p = .98$).

3.2 | COVID-19 related experiences in the IECMH workforce

Regarding the impact of COVID-19, the majority of participants reported that they were practicing social

TABLE 1 Descriptive statistics and correlations for study variables

Variable	1	2	3	4	5	6	7	8
1. COVID stress	1	–	–	–	–	–	–	–
2. Perceived stress	.49*	1	–	–	–	–	–	–
3. Wellbeing	–.49*	–.59*	1	–	–	–	–	–
4. Self-care	–.35*	–.53*	.57*	1	–	–	–	–
5. Burnout	.42*	.70*	–.57*	–.63*	1	–	–	–
6. Depression	.59*	.84*	–.67*	–.55*	.63*	1	–	–
7. Anxiety	.46*	.75*	–.55*	–.39*	.50*	.79*	1	–
8. Internalizing	.60*	.85*	–.68*	–.56*	.60*	.95*	.94*	1
<i>N</i>	141	111	124	118	106	108	115	108
<i>M</i>	5.24	15.23	6.21	54.92	21.24	14.90	8.40	–.04
<i>SD</i>	3.29	5.81	2.07	8.06	5.62	9.92	5.70	.90
Possible range	0–16	0–40	0–10	27–135	10–50	0–60	0–21	–3.0 to 3.0
Actual range	0–13	0–29	0–10	33–75	11–38	1–43	0–28	–1.4 to 2.3

Note. Perceived stress (Perceived Stress Scale); Self-care (Self-Care Belief and Behavior Questionnaire); Burnout (Professional Quality of Life burnout subscale); Depression (Center for Epidemiological Studies Depression Scale); Anxiety (Generalized Anxiety Disorder).

* $p < .01$.

TABLE 2 Agency designation and reflective supervision/consultation (RSC)

Home-visiting group (n = 55)	Child care group (n = 30)	Other group (n = 37)
Home-visiting (HV; n = 28)	Child care (CC; n = 13)	Early intervention (n = 12)
HV + Early intervention (n = 14)	CC + Early education (n = 7)	Health (n = 7)
HV + 2+ designations (n = 10)	CCR&R (n = 5)	Early education (n = 6)
HV + Family advocacy (n = 1)	CC + 2+ designations (n = 3)	Unspecified "other" (n = 4)
HV + Health (n = 2)	CC + Child welfare (n = 1)	Child welfare (n = 3)
		Head Start/Early Head Start (n = 1)
		Higher education (n = 1)
		SLP (n = 1)
RSC	RSC	RSC
Never = 19%	Never = 53%	Never = 33%
Less than a year = 8%	Less than a year = 10%	Less than a year = 30%
A year or more = 73%	A year or more = 37%	A year or more = 37%

distancing (85%), 33% reported that they had to isolate or quarantine at some point, 79% were working from home, 2% were unemployed, 28% experienced a change in use of healthcare services, 67% reported following media coverage related to COVID-19, 60% reported changes to travel plans, and 63% reported that they had to balance working from home while taking care of others (e.g., parents, kids, partners). Of those who reported having to balance caregiving and working, 82% reported that they were caring for a child or children, 14% reported that they were caring for an elderly person, and 4% reported they were caring for someone else. When asked how much COVID-19 was impacting their day-to-day life, 8% indicated "a little," 25% indicated "much," 44% indicated "very much," and 23% indicated "extremely."

At the time of the survey (June/July 2020), none of the participants reported that they had been diagnosed with COVID-19, though 53% reported fear of getting COVID-19 and 73% reported worry about loved ones contracting COVID-19. One-third of the sample reported experiencing a personal financial loss due to COVID-19 and 13% of the sample reported that COVID-19 had impacted their access to basic supplies (e.g., food, water, medications, a place to stay). Finally, 53% of the sample reported changes to sleep, 33% reported increased loneliness, and 11% of the sample reported increased substance use due to COVID-19 related stressors.

Regarding their agency's response to the pandemic, at the time of the survey (June/July 2020), 79% reported that "We are currently working remotely and using telecommunication to work full time or part time," 13% reported that "We have a hybrid model where some things are done remotely and some things are done in person," 5% reported that "We are operating as usual, nothing has changed in response to COVID," and 5% reported "Other." In response to the following question, "Tennessee issued a "Safer at home" statement on 3/31/2020. When, in relation to 3/31/2020, did your agency allow you to work remotely or change how you were operating to engage in social dis-

tancing?" 83% indicated that they were allowed to work remotely prior to 3/31/2020, 11% indicated that they were allowed to work remotely within a week of the order, 3% within 2 weeks, and 2% indicated that their agencies "did not change their policies or allow us to engage in social distancing." Over half of the sample (52%) indicated that they were designated as essential workers and 21% of the sample was unsure whether they were essential workers. Of those who indicated that they were essential workers, 16% reported that this designation made them feel stressed, 19% reported feeling proud, 30% reported feeling neutral, and 35% reported that they felt proud *and* stressed. In late April, Governor Lee released "The Tennessee Pledge: Reopening Tennessee Responsibly." We asked participants about their feelings in response to the gradual re-opening of the state starting May 1, 2020, and 25% reported that this re-opening plan lowered their stress, 60% reported that it increased their stress, 12% indicated that it did not impact them, and 4% selected "Other."

Regarding IECMH workers' feelings toward their agency's *initial* COVID-19 response, 12% indicated that they were very dissatisfied or somewhat dissatisfied, 3% were neutral, 20% were somewhat satisfied, and 65% were very satisfied. In terms of their feelings towards their agency's *current* response (as of June/July 2020), 9% indicated that they were very dissatisfied or somewhat dissatisfied, 10% were neutral, 32% were somewhat satisfied, and 49% were very satisfied. Finally, when asked whether they felt supported by their employer during this time in the pandemic, 3% selected "not at all true," 3% "a little true," 14% "somewhat true," 29% "mostly true," and 50% "very true."

3.3 | Mental health and burnout in the IECMH workforce

Regarding depression symptoms, 54% of the sample indicated minimal depression symptoms (CES-D score 1–9),

TABLE 3 Model 1 simple mediation

	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
<i>a</i>	−1.02	.25	<.001	−1.52 to −.52
<i>b</i>	−.04	.01	<.001	−.06 to −.03
<i>c</i>	.19	.02	<.001	.14–.23
<i>c'</i>	.14	.02	<.001	.09–.19
<i>ab</i>	.04	.02		.02–.09

Note. Mediation analysis testing the effect of COVID stress (X) on internalizing (Y) as mediated through self-care (M). CI, confidence interval.

28% of the sample indicated mild depression symptoms (CES-D score 10–15), 15% of the sample indicated moderate depression symptoms (CES-D score 16–24), and 3% indicated severe depression symptoms (CES-D score of 25 or higher). Regarding anxiety symptoms, 25% of the sample indicated minimal anxiety symptoms (GAD-7 score 0–4), 42% indicated mild anxiety symptoms (GAD-7 score 5–9), 22% indicated moderate anxiety symptoms (GAD-7 score 10–14), and 11% indicated severe anxiety symptoms (GAD-7 score 15–21). Regarding levels of professional burnout, 59% of the sample fell within the low burnout level (score < 23 on Burnout subscale) and 41% fell within the average burnout level.

3.4 | Simple mediation analyses

Two simple mediation models (see Figure 1) were tested using Hayes' PROCESS macro (PROCESS model #4) that estimates an OLS regression in which the total effect (*c*) of X (COVID-19 stress) on Y (internalizing symptoms in Model 1, professional burnout in Model 2) equals the sum of the direct effect (*c'*) of X on Y when controlling for the mediator (M, self-care behaviors) and the indirect effect of X on Y through M (product of paths *a***b*, see Figure 1; Hayes, 2017).

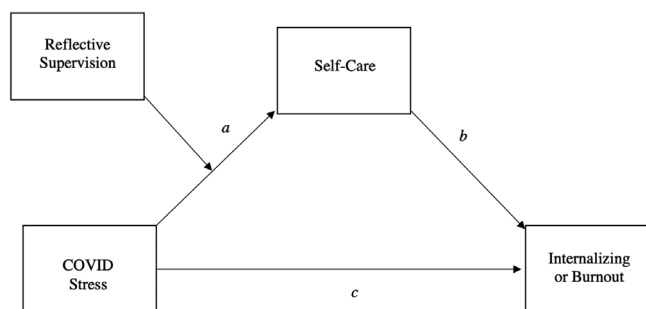
For Model 1, the overall model was significant $F(2, 104) = 48.41, R^2 = .48, p < .001$ as was the indirect effect of COVID stress on internalizing symptoms through the mechanism of self-care behaviors ($B = .06, SE = .03, [CI .02-.12]$). All other paths ($a = X$ to $M, b = M$ to $Y, c' = X$ to Y controlling for M) were also significant (see Table 3). Together, this suggests that higher COVID-19 stress was associated with lower self-care behaviors, which in turn, was associated with higher risk for internalizing symptoms.

For Model 2, the overall model was also significant $F(2, 101) = 45.05, R^2 = .47, p < .001$ as was the indirect effect of COVID stress on burnout through the mechanism of self-care behaviors ($B = .39, SE = .15, [CI .14-.73]$). All other paths ($a = X$ to $M, b = M$ to $Y, c' = X$ to Y controlling for M) were also significant (see Table 4). Together, this suggests

TABLE 4 Model 2 simple mediation

	<i>B</i>	<i>SE</i>	<i>p</i>	95% CI
<i>A</i>	−1.01	.26	<.001	−1.53 to −.49
<i>B</i>	−.38	.05	<.001	−.49 to −.27
<i>C</i>	.83	.17	<.001	.48–1.18
<i>c'</i>	.45	.15	.005	.14–.75
<i>Ab</i>	.38	.14		.14–.70

Note. Mediation analysis testing the effect of COVID stress (X) on burnout (Y) as mediated through self-care (M). CI, confidence interval.



Note. Model 3 had Internalizing as the outcome. Model 4 had Burnout as the outcome.

FIGURE 3 Model 3 and Model 4 moderated mediation

that higher COVID-19 stress was associated with lower self-care behaviors, which in turn, was associated with higher risk for burnout.

3.5 | Moderated mediation analyses

To test whether the mediation models above depend on experience of RSC received, two moderated mediation models (see Figure 3) were tested using Hayes' PROCESS macro (PROCESS model #7) that estimates an OLS regression: $Y = i_Y + c'X + b_1M + b_2W + b_3XW + e_Y$, where Y is the outcome (internalizing symptoms in Model 3, professional burnout in Model 4), X is the predictor (total COVID-19 stress), M is the mediating variable (self-care behaviors), and W is the moderating variable (RSC; Hayes, 2017). The PROCESS macro also estimates an index of moderated mediation² that measures whether the indirect effect of X on Y through M is contingent upon the moderator.

The total effect of Model 3 was significant, $F(2, 96) = 43.27, R^2 = .47, p < .001$ as was the interaction term (XW), $F(1, 95) = 4.00, R^2 \text{ change} = .04, p = .048$, suggesting significant moderation of the pathway between X (COVID Stress) and M (self-care behaviors) depending

²The index of moderated mediation is represented mathematically through the equation ab_3 , where *a* is the coefficient for the X to Y path and b_3 is the coefficient for the interaction term XW.

TABLE 5 Model 3 moderated mediation

	B	SE	p	95% CI
A	-1.59	.42	<.001	-2.42 to -.75
B	-.04	.01	<.001	-.06 to -.03
c'	.14	.02	<.001	.10-.19
x*w	.57	.28	.046	.01-1.13

Note. Moderation mediation analysis testing effect of reflective supervision (W) on pathway between COVID stress (X) and self-care (M). CI, confidence interval.

TABLE 6 Model 4 moderated mediation

	B	SE	p	95% CI
A	-1.56	.44	<.001	-2.44 to -.68
B	-.38	.06	<.001	-.50 to -.27
c'	.46	.16	.005	.14-.78
x*w	.54	.29	.071	-.05 to 1.12

Note. Moderation mediation analysis testing effect of reflective supervision (W) on pathway between COVID stress (X) and self-care (M). CI, confidence interval.

on RSC experience. Specifically, the inverse relationship between COVID stress and self-care behaviors was strongest when one had no RSC experience ($B = -1.37$ $t = -3.87$, $p < .001$). The inverse relationship was still significant at moderate levels of RSC ($B = -.86$ $t = -3.20$, $p = .002$), but the effect was smaller compared to the group with no RSC. Finally, at high levels of RSC experience, the inverse relationship between COVID stress and self-care behaviors was no longer significant ($B = -.44$ $t = -1.24$, $p = .22$). All mediational pathways ($a = X$ to M , $b = M$ to Y , $c' = X$ to Y controlling for M) were also significant (see Table 5); however, the index of moderated mediation was not significant (Index = $-.03$, SE = $.02$, CI $-.08$ to $.01$).

The total effect of Model 4 was also significant, $F(2, 94) = 41.17$, $R^2 = .47$, $p < .001$ and the test of the interaction term (XW) approached significance, $F(1, 93) = 3.61$, R^2 change = $.03$, $p = .06$ (see Table 6). Similar to above, the index of moderated mediation was not significant (Index = $-.23$, SE = $.16$, CI $-.56$ to $.06$). Given that the results suggested a possible moderating effect of W (RSC) on the pathway between X and M (COVID-19 stress to self-care behaviors), the conditional effect of X on M at varying levels of W (RSC) mirrored those described above (see Figure 4).

4 | DISCUSSION

The IECMH workforce is comprised of a diverse range of professionals who are committed to bettering the lives of vulnerable children and families through promotion, prevention, and intervention. This type of work can be

both fulfilling and exhausting, especially given the IECMH emphasis on relationships as a mechanism of change (Neilsen Gatti et al., 2011). Given the emotional nature of IECMH work, the workforce's high risk for stress, mental health struggles, and burnout (Bernstein & Edwards, 2012; Frosch et al., 2018; A. A. Tomlin et al., 2016), and the known heightened risk for stress and mental health difficulties during the COVID-19 pandemic (Czeisler et al., 2020), it is essential to better understand how to reduce risk and promote resilience for the IECMH workforce in the midst of the COVID-19 pandemic and its aftermath. The present study sought to document a snapshot of COVID-19 on Tennessee's (TN) IECMH workforce early in the pandemic (June/July 2020), to explore the link between COVID-19 stress and professional and personal well-being, to examine the role of self-care behaviors as a mechanism of risk transmission, and to examine the potential protective role of RSC on self-care behaviors in the context of COVID-19 related stress. Results support that the workforce is indeed stressed, that higher COVID-19 stress was associated with higher burnout and higher internalizing symptoms, that reduced self-care behaviors was one mechanism through which COVID-19 stress influenced professional and personal well-being, and that RSC weakened the inverse relationship between COVID 19 and self-care.

4.1 | State of the IECMH workforce in Tennessee

This survey reached across all geographic regions in TN and represented a breadth of sectors in the IECMH workforce (see Table 2). At the time of this survey (June/July 2020), the majority of the workforce (79%) reported working from home and having to balance that work with taking care of others (63%; e.g., children, elderly person). Almost everyone (92%) reported that COVID-19 was impacting their day-to-day life, though the nature of impact varied individual to individual (e.g., 11% reported increased substance use, 53% reported sleep impact). It is encouraging that the majority of the sample reported satisfaction with how their agency initially responded to the pandemic (in March 2020), those satisfaction rates maintained across several months as indicated by their current satisfaction at the time of the survey (June/July 2020), and that the majority of the sample reported that they felt supported by their employer. Exploratory analyses revealed that one's perceived level of support from their employer was significantly related to lower burnout ($r = -.29$, $p = .003$) and lower internalizing symptoms ($r = -.20$, $p = .04$). Of note, the majority of our sample fell within the low burnout range. This was unexpected, but perhaps reflects the diversity of sectors represented (e.g., home visiting

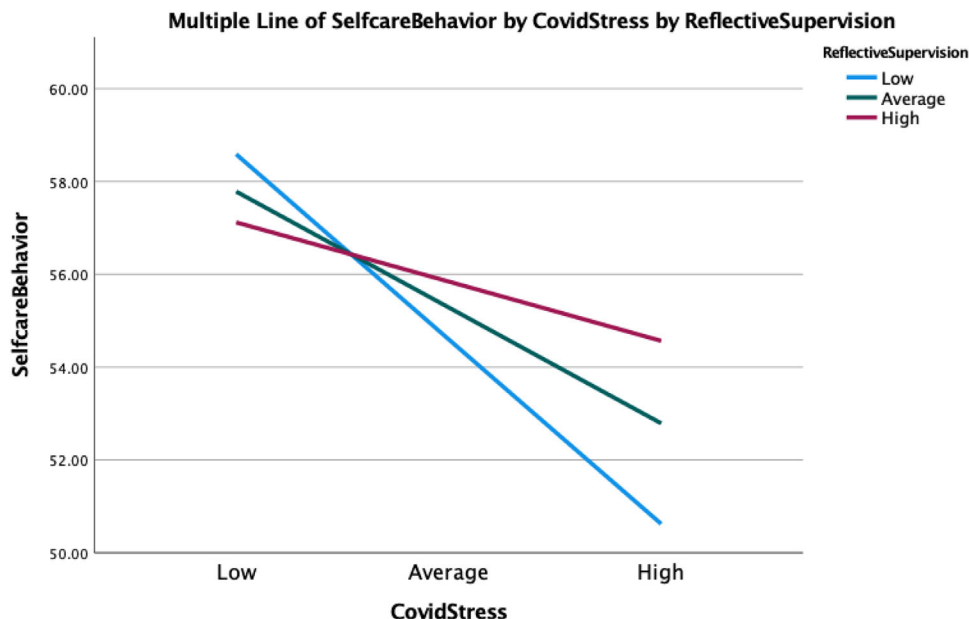


FIGURE 4 Moderation Model indicating the effect of reflective supervision on the relationship between COVID stress, and self-care behaviors

supervisors, child care resource and referral providers) and perhaps reflects professional resilience in TN's IECMH workforce.

Regarding mental health, the majority of the sample fell in the minimal to mild range for both depression and anxiety symptoms (82% & 67%, respectively); however, a subset did indicate moderate to severe symptoms for depression or anxiety (18% & 33%, respectively). These rates are higher than the national point prevalence rates. Specifically, the point prevalence rate of depression in the U.S. population is approximately 7.1% overall and 8.7% for women (*Major Depression*, 2019) whereas the point prevalence rate of anxiety in the U.S. is approximately 19.1% overall and 23.4% for women (*Any Anxiety Disorder*, 2017). When using the prevalence rates for women (given the nature of our sample), our sample showed mental health rates approximately 2.1 times the national average for depression and 1.4 times the national average for anxiety. This makes sense in the context of the high stress placed on the IECMH workforce, the high stress reported in the sample (71% of the sample reported moderate to high perceived stress), and the higher rates of stress and mental health challenges facing adults universally in the midst of the COVID-19 pandemic (e.g., Czeisler et al., 2020; Frosch et al., 2019).

4.2 | Self-care in the IECMH workforce

Embedded within IECMH work is a value on self-awareness, specifically, that one takes the time to examine

their own thoughts, feelings, strengths, and growth areas (Alliance, 2018). Further, part of the reflective work in the IECMH field involves slowing down, noticing one's emotional response, and doing what is needed to be able to remain curious and open to the needs of the families and children served. It follows that it would be important for one to take care of their own physical and mental well-being in order to be able to hold and sustain the reflective and regulated stance required of IECMH-based work and ample research speaks to the importance of self-care in helping professions to reduce burnout and promote compassionate and empathic relationship-based work (e.g., Alkema et al., 2008; Eaves et al., 2020; Rupert & Dorociak, 2019). Our findings add to and expand this literature by documenting that self-care behaviors (i.e., whether or not someone reports engaging in behaviors that promote their well-being) in the IECMH workforce play an important mechanistic role in the relationship between COVID-19 stress and personal and professional well-being. Specifically, we found that COVID stress was associated with reduced self-care behaviors, and reduced self-care behaviors were associated with higher rates of burnout and mental health symptoms.

These findings are unique in their specificity to COVID-19 and the IECMH workforce and reinforce the notion that self-care is an important foundation for personal and professional well-being. At the same time, we encourage readers to exercise caution in concluding that self-care is the answer. Self-care is a relatively individualistic notion that suggests it is the IECMH provider's responsibility to take

care of themselves. We know that there are many cultural and systemic issues that interfere with one's access to and ability to practice self-care (Adams, 2021; West et al., 2020). In fact, research has shown that even individuals with high levels of resilience are prone to burnout in high stress work environments (West et al., 2020) and that higher job stress leads to lower perceived social support, which leads to a higher risk for burnout (Wu et al., 2021). Thus, there seems to be a bit of a dialect around self-care recommendations such that individual-level self-care behaviors can and should be encouraged to help promote professional and personal well-being *and* individual self-care is not enough, on its own, to protect against burnout and mental health symptoms. Policies and systems-level change to promote well-being in the workforce are an essential piece of the puzzle to promote sustainability in our IECMH workforce.

4.3 | Reflective supervision as a systems-level resource to promote self-care

One of the many strengths of the field of IECMH, is its attention to the parallel process and commitment to reflective practice (Eggbeer et al., 2007; Gilkerson, 2004). One way that agencies can systemically promote a work environment that promotes individuals' professional well-being is through ensuring the provision of consistent RSC. Results from the present study indicated that individuals who received RSC engaged in self-care practices despite the negative influence of COVID-19 stress had on reducing self-care behaviors. In other words, those who received RSC were more likely to maintain their self-care practices even in the face of high stress compared to IECMH providers who did not receive RSC. Further, mean level differences showed that those providers who had never received RSC had higher levels of internalizing symptoms than providers who received RSC. In TN, RSC provision is typically an agency-level decision rather than an individual-level decision, so it is unlikely that these mean level differences in internalizing symptoms are due to selection bias (such that those who have more internalizing symptoms are less likely to opt into RSC). Exploratory independent samples t-tests indicated that compared to those who were receiving RSC, individuals who had never received RSC were less likely to endorse the items "My immediate supervisor values reflective practice/supervision and holds a safe space for me to think through the challenges of my work," "My agency values reflective practice/supervision and holds a safe space for me to think through the challenges of my work," and "I feel supported by my agency to practice self-care." Our findings are commensurate with past studies that

have shown that RSC is associated with greater ability to cope with job-related stress (Frosch et al., 2018) and add to the literature by showing that one way RSC may do this is through creating a workplace culture that values self-care.

4.4 | Limitations and future directions

No study is without its limitations. This study was conducted at one point early within the pandemic (June/July 2020) and was specific to TN's IECMH workforce. As such, results should be considered within the historical and geographical contexts of the methodology. That being said, one of the strengths of this study is the breadth of IECMH sectors represented and the geographical diversity across TN (ranging from rural to urban and everywhere in between). Further, the results are limited by the use of several single-item measures (e.g., RSC provision, satisfaction with employer, current well-being), use of the newly developed PSI, and the use of a measure that is currently being validated (Self-Care Belief and Behavior Questionnaire; SBBQ). We reported internal reliability and indices of concurrent validity, when possible, to boost our confidence in these measures and encourage future research to continue to validate these measures. Given the cross-sectional nature of this study, we cannot determine the causality of the constructs, and the sole reliance on self-report leaves results open to single method (and self-report) biases. For example, COVID-19 stress could be associated with higher anxiety and depression *or* those with higher anxiety and depression could report higher COVID-19 stress. We are actively collecting longitudinal data on this sample and are eager to share those longitudinal results, in the future, to help offset the limitations of cross-sectional methodology.

Finally, it is essential to note that we did not include any measures related to the frequency and quality of RSC received even though it can vary. Most of the participants in this project were recruited from agencies that contract with our state association of infant mental health for the provision of RSC. Contracted agencies such TN Department of Health Mother Infant Evidence Based Home Visiting program or the TN Department of Human Services Child Care Resource and Referral program are invited to participate in RSC trainings and to receive RSC from an endorsed reflective supervisor/consultant. Despite that fact, we opted to not ask about specific agency/supervisor/contract in the present study to help promote a greater sense of anonymity; therefore, we do not have information regarding the details of RSC received. Future research should use tools such as the Reflective Interaction Observation Scale (Watson et al., 2016) to be able to make more rich

interpretations of the benefits of RSC depending on the quality of RSC received.

5 | CONCLUSION

This study is the first known study to examine the impact of COVID-19 related stress on general stress, anxiety, depression, and professional burnout in the IECMH workforce. Findings highlight how the IECMH workforce had higher than national averages in mental health symptoms, but relatively low levels of professional burnout. Greater COVID-19 related stress was associated with reduced self-care behaviors, which in turn heightened risk for burnout and internalizing symptoms. However, RSC weakened the inverse relationship between COVID 19 and self-care, suggesting a potential protective effect in this risk pathway. Providers who received RSC reported feeling more supported in reflective work by their supervisors and agencies and reported that their agencies valued self-care, when compared to individuals who did not receive RSC. These findings highlight the importance of both individual (e.g., self-care) and agency (e.g., RSC provision) level changes to promote professional and personal well-being in the IECMH workforce.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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APPENDIX A

Measure	Construct	Items (% of participants endorsing item)	Alpha
Pandemic Stress Index (PSI)	COVID-19 related stress	<u>COVID-19 Related Stress</u>	.82
		1. Being diagnosed with COVID-19 (100% no)	
		2. Fear of getting COVID-19 (47.5% no, 52.5% yes)	
		3. Fear of giving COVID-19 to someone else (48.2% no, 51.8% yes)	
		4. Worrying about friends, family, partners, etc. (27% no, 73% yes)	
		5. Stigma or discrimination from other people (e.g., people treating you differently because of your identity, having symptoms, or other factors related to COVID-19) (92.9% no, 7.1% yes)	
		6. Personal financial loss (e.g., lost wages, job loss, investment/retirement loss, travel-related cancellations) (67.4% no, 32.6% yes)	
		7. Frustration or boredom (45.4% no, 54.6% yes)	
		8. Not having enough basic supplies (e.g., food, water, medications, a place to stay) (86.5% no, 13.5% yes)	
		9. More anxiety (40.4% no, 59.6% yes)	
		10. More depression (69.5% no, 30.5% yes)	
		11. More sleep, less sleep, other changes to your normal sleep pattern (46.8% no, 53.2% yes)	
		12. Increased alcohol or other substance use (89.4% no, 10.6% yes)	
		13. A change in sexual activity (92.9% no, 7.1% yes)	
		14. Loneliness (66.7% no, 33.3% yes)	
15. Confusion about what COVID-19 is, how to prevent it, or why social distancing/isolation/quarantine are needed (75.9% no, 24.1% yes)			
19. Other difficulties or challenges (79.4% no, 20.6% yes)			
		<u>COVID-19 Resilience*</u>	
		16. Feeling that I was contributing to the greater good by preventing myself or others from getting COVID-19 (56.7% no, 43.3% yes)	
		17. Getting <i>emotional or social</i> support from family, friends, partners, a counselor, or someone else (55.3% no, 44.7% yes)	
		18. Getting <i>financial</i> support from family, friends, partners, a counselor, or someone else (95% no, 5% yes)	
		*These items were not included in the total COVID-19 related stress score given that they could be perceived as positive effects of COVID-19 or social support received, rather than clear stressors.	
Self-Care Belief and Behavior Questionnaire (SBBQ)	Self-care behaviors	1. When I feel stressed, I do healthy things that make me feel better	.89
		2. I do activities that promote my emotion well-being (ex. find healthy ways to increase positive emotions and cope with negative emotions, etc.)	
		3. I do activities that promote my spiritual well-being (ex. meditation, praying, attending place of worship, etc.)	
		4. When I feel stressed, I do things that end up making me feel worse (ex. complain, use substances, etc.)	
		5. I take out time each day to do things I enjoy	
		6. I strive for balance among work, family, relationships, play, and rest	
		7. I do activities that promote my physiological well-being (ex. go to doctor when I am sick or for prevention, exercise, eat healthy, sleep, etc.)	
		8. I maintain/manage family and social relationships that I value	
		9. I ask others for help when I need it	
		10. I accept help from others when I need it	
		11. I offer/give help to others	
		12. I do not take time for enjoyable activities	
		13. I purposefully do self-care activities to prevent times of stress or to help me navigate stressful times	
		14. I do activities that promote my psychological well-being (ex. thoughtful conversation, journaling, mindfulness, creating, etc.)	
		15. I ignore my body's signals (ex. negative thoughts, physical or mental tiredness/exhaustion) when it tells me to slow down	