

Anxiety, Stress, & Coping

An International Journal


ISSN: (Print) (Online) Journal homepage: <https://www.tandfonline.com/loi/gasc20>


Associations between self-care practices and psychological adjustment of mental health professionals: a two-wave cross-lagged analysis

Pascale Brillon, Michelle Dewar, Alison Paradis & Frederick Philippe


To cite this article: Pascale Brillon, Michelle Dewar, Alison Paradis & Frederick Philippe (2023) Associations between self-care practices and psychological adjustment of mental health professionals: a two-wave cross-lagged analysis, *Anxiety, Stress, & Coping*, 36:5, 603-617, DOI: [10.1080/10615806.2023.2178646](https://doi.org/10.1080/10615806.2023.2178646)

To link to this article: <https://doi.org/10.1080/10615806.2023.2178646>

 [View supplementary material](#) 

 [Published online: 15 Feb 2023.](#)

 [Submit your article to this journal](#) 

 [Article views: 577](#)

 [View related articles](#) 

 [View Crossmark data](#) 

 [Citing articles: 1](#) [View citing articles](#) 



Associations between self-care practices and psychological adjustment of mental health professionals: a two-wave cross-lagged analysis

Pascale Brillon , Michelle Dewar , Alison Paradis  and Frederick Philippe 

Psychology Department, Université du Québec à Montréal, Montréal, Canada

ABSTRACT

Cultivation of self-care is believed to foster more well-being and to mitigate the psychological difficulties that mental health professionals experience. However, how the well-being and psychological distress of these professionals impact their personal self-care practice is rarely discussed. In fact, studies have yet to investigate whether the use of self-care improves mental health, or whether being in a better place psychologically makes professionals more prone to using self-care (or both). The present study aims to clarify the longitudinal associations between self-care practices and five indicators of psychological adjustment (well-being, posttraumatic growth, anxiety, depression, and compassion fatigue). A sample of 358 mental health professionals were assessed twice (within a 10-month interval). A cross-lagged model tested all associations between self-care and psychological adjustment indicators. Results showed that self-care at T1 predicted increases in well-being and in post-traumatic growth, and a reduction in anxiety and depression at T2. However, only anxiety at T1 significantly predicted greater self-care at T2. No significant cross-lagged associations were found between self-care and compassion fatigue. Overall, findings suggest that implementing self-care is a good way for mental health workers to “take care of themselves.” However, more research is needed to understand what leads these workers to use self-care.



ARTICLE HISTORY


Received 5 November 2022
Revised 2 February 2023
Accepted 5 February 2023

KEYWORDS

Self-care; mental health professionals; well-being; distress; cross-lagged model; psychological adjustment

Mental health professionals, such as psychologists, social workers, psychosocial counselors, mental health nurses and psychiatrists play a key role in providing care and support in their communities. The critical importance of their work has been made even more obvious in the face of the COVID-19 pandemic. The unrelenting distress, which has emerged or worsened in response to this pandemic (see a systematic review by Vindegaard & Benros, 2020) has resulted in increased demands on clinicians (Galea, Merchant, & Lurie, 2020). However, even before the pandemic, our understanding of mental health workers’ own mental health was incomplete, and studies reported contradictory findings. Some research showed that mental health professionals generally coped well with their work and displayed better mental health than other workers (e.g., Koller & Hicks, 2016). Researchers pointed to their greater coping and emotional regulation abilities and highlighted that their professional knowledge could have allowed them to deploy and maintain these strategies more efficiently than the general public (Manning-Jones et al., 2016; Norcross et al., 1986; Norcross 2005). Many

CONTACT Pascale Brillon  brillon.pascale@uqam.ca  Psychology Department, Université du Québec à Montréal, C.P.8888, Succursale Centre-Ville, Montréal, Québec, Canada H3C 3P8

 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/10615806.2023.2178646>.

© 2023 Informa UK Limited, trading as Taylor & Francis Group

mental health professionals reported that providing mental health care was a source of growth, fulfillment, and resilience for them (Kinman & Grant, 2020). However, several other studies showed that being compassionate and empathic could come at a cost. When mental health professionals pay more attention to their clients' well-being and neglect their own, providing mental health care can become emotionally draining, which can lead to symptoms of psychological distress and reduced well-being (Figley, 2002). For instance, a meta-analysis of mental health professionals found a pooled prevalence of 40% for emotional exhaustion (O'Connor et al., 2018). Another study investigated the prevalence of compassion fatigue amongst different types of mental health professionals (e.g., psychologists, social workers): between 7.7% and 28.6% of professional groups reported high levels of compassion fatigue (i.e., diminished ability to bear another's suffering; Figley, 2002; Rossi et al., 2012). In fact, mental health professions are amongst the most at risk for compassion fatigue (Rivera-Kloepffel & Mendenhall, 2021) and can be subject to increased risk of frustration, suicidal thoughts, helplessness, and professional turnover (e.g., Rössler, 2012; Kleespies et al., 2011). These results suggest that while mental health professionals generally display good coping and are resilient, they are not invulnerable and can also experience significant suffering. Thus, understanding what might curb the emergence of distress in this population should be further researched.

Defining self-care

The idea that one must take care of themselves to be able to better help others appears to be supported by research. Mental health professionals who report higher levels of distress tend to deliver lower quality care, which may be damaging to clients receiving psychological services (e.g., Salyers et al., 2017). Alarming, mental health professionals often struggle to prioritize their own needs in their eagerness to help others (Skovholt et al., 2001). In this context, practicing sufficient self-care is now considered one of the pillars of a healthy and ethical clinical practice by several mental health professional associations. For example, the most recent Canadian Code of Ethics for Psychologists states that it is necessary to "engage in self-care activities that help avoid conditions (e.g., burnout) that could result in impaired judgment and interfere with their ability to benefit and not harm others" (Canadian Psychological Association, 2017). Mental health professionals are encouraged to practice self-care to promote their well-being, and to bolster the quality of the care clients receive (Wise & Reuman, 2019).

In the simplest terms, self-care means taking care of oneself. However, from the perspective of caregiving professionals, self-care generally designates activities, processes, and behaviors that are self-initiated for the purpose of providing psychological relief (e.g., reducing stress and depression), supporting resilience towards prevention (e.g., of compassion fatigue), and promoting a subjective sense of well-being (Jiang et al., 2021; Lee & Miller, 2013; Posluns & Gall, 2020). The literature generally agrees that self-care is multidimensional, meaning that caring for oneself is achieved by implementing strategies in several areas of life (Jiang et al., 2021; Lee & Miller, 2013; Posluns & Gall, 2020). For example, physical self-care aims to promote physical well-being (e.g., adequate sleep), psychological self-care is meant to promote self-awareness (e.g., journaling), emotional self-care aims to maintain and promote positive emotions (e.g., spending time with loved ones), spiritual self-care focuses on finding meaning in life (e.g., meditation), and, lastly, professional self-care promotes healthy work conditions and the development of competence (e.g., getting adequate supervision; Bloomquist et al., 2015). Therefore, self-care is a behavior that one can implement to adapt and maintain good psychological adjustment when faced with challenging times, naturally decreasing or increasing the amount and type of self-care to suit their needs at any given time. The COVID-19 pandemic has put significant pressure on mental health professionals' personal (Vindgaard & Benros, 2020) and professional lives (Galea et al., 2020). For this reason, investigating how self-care practices and psychological adjustment naturally interact over time during a period of high stress is particularly pertinent as it allows us to capture how these professionals spontaneously

adapt. Several lists of self-care strategies have been developed and shared with mental health professionals as ways to maximize their vitality. However, very few studies have measured the psychological *impact* of self-care on mental health or distress. Even fewer studies have tried to understand why some mental health professionals implement self-care.

Associations between self-care and psychological adjustment

In recent years, great effort has been made to explore the associations between self-care practices and indicators of psychological adjustment in samples of mental health professionals (see reviews by Dattilio, 2015 and Posluns & Gall, 2020). Indeed, empirical research on self-care in mental health professionals indicates that a lack of self-care is associated with multiple unwanted outcomes, the most studied being compassion fatigue, secondary traumatic stress, and burnout (Posluns & Gall, 2020). In a sample of college students, less self-care was also associated with more symptoms of anxiety and depression (Tam et al., 2021). In addition to the links found with reduced distress, several studies have reported positive associations between self-care practices and good mental health, such as with general well-being (Richards, et al., 2010). However, how other positive psychological adjustment indicators relate to the practice of self-care remains to be clarified. For example, to our knowledge, no study has investigated how self-care relates to posttraumatic growth, that is, the significant positive changes that helping professionals can report in the aftermath of their highly challenging work (Cann et al., 2010). Moreover, the directionality of the associations between self-care and psychological adjustment remains empirically unexplored.

The directionality of associations between self-care and psychological adjustment

The associations found between self-care practices and psychological adjustment have been interpreted in the way that more self-care improves mental health. In fact, the most “obvious” causal pathway suggests that self-care prevents unwanted outcomes and has psychological benefits, implying directionality as \uparrow self-care \rightarrow \uparrow mental health + \downarrow distress (e.g., Posluns & Gall, 2020). However, the available studies are largely cross-sectional and do not consider that self-care and mental health could have reciprocal relationships. Most importantly, they do not actually test the directionality of these links. Other studies have employed pre-post or controlled designs to test whether self-care-based programs, such as mindfulness training programs, are efficient in improving the mental health of trainees (see a meta-analysis by Colman et al., 2016) or seasoned clinicians (e.g., Eriksson et al., 2018). These studies indicate that self-care-based interventions are beneficial to mental health professionals. However, they tend to focus on only one or two aspects of self-care (e.g., mindfulness, physical exercise; Colman et al., 2016) and do not really address whether naturalistic self-care practices improve the psychological adjustment of mental health professionals.

Consideration of what predicts the use of self-care in mental health professionals has been much less explored in studies. Knowing why mental health professionals tend to naturally increase their self-care and why others do not (and are at risk of further deterioration) are critical issues to maintain the health and longevity of mental healthcare workforce. We argue that there could be a directional effect where the psychological adjustment of mental health professionals could impact their tendency to implement self-care strategies (e.g., \uparrow distress \rightarrow \uparrow self-care). For example, mental health professionals who are struggling with anxiety may be more proactive in implementing self-care strategies. Studies on physical exercise and anxiety suggest that exercise regulates negative psychological states such as anxiety and is reinforced as a regulation strategy over time (see review by Asmundson et al., 2013). This activation could apply more broadly to self-care, as anxiety could trigger an increase in self-care-orientated activities to downregulate anxiety. Alternatively, those suffering from depression might be less inclined to implement self-care strategies despite needing them. Indeed, symptoms of depression are known to lead to reduced behavioral activation and engagement in pleasurable activities (American Psychiatric Association [APA], 2013), which

could manifest themselves through reduced self-care. Spending time in nature, or seeking additional clinical supervision, while helpful remedies to the pressures of their work, may seem insurmountable and require too much energy when one's mental health is already poor.

To our knowledge, very few studies have examined what predicts self-care practices. One interesting study found that a self-compassionate attitude in social workers was a unique and significant predictor of using both personal and professional self-care strategies (Jay Miller et al., 2019). Another study of interest investigated the reciprocal associations between perceived stress and self-care at different time points of undergraduate students' semester (Simerly & Blackhart, 2021). Using a cross-lagged model, this study showed that self-care and stress had negative reciprocal associations across time points (as stress increased, self-care behaviors decreased and vice versa). In sum, investigating the potentially reciprocal relationships between self-care and psychological adjustment is critical to better understanding and promoting self-care, and harnessing its benefits.

Objectives and hypothesis

Using a cross-lagged longitudinal design, this study aimed to better understand the directionality of the associations between self-care practice and five indicators of psychological adjustment in mental health professionals across two measurement time points spaced 10 months apart: well-being, post-traumatic growth, anxiety symptoms, depression symptoms, and compassion fatigue. Precisely, our study tested whether the frequency of self-care at the first time point predicted the psychological adjustment of mental health professionals at the second time point, and/or whether psychological adjustment at the first time point was associated with an increased or reduced self-care practice at the second time point, both time points occurring during the COVID-19 pandemic. Studies have found that self-care was associated with better mental health (i.e., less distress and more well-being). Therefore, we expected that self-care at T1 would be positively associated with well-being and posttraumatic growth and negatively associated with anxiety symptoms, depression symptoms, and compassion fatigue at T2. Given the lack of research on predictors of self-care practice, no further hypothesis was posited.

Method

Participants and procedure

A total of 732 mental health professionals participated in the first wave of the study (T1 from May 1 to July 20, 2020) and, of these, 358 also completed the second wave (March 11 to June 6, 2021) and were included in the current study. Inclusion criteria were to be 20 years of age or older, to be currently working in Canada as a mental health professional, to be sufficiently proficient in English or French (both official Canadian languages), and to not have any work interruptions because of the COVID-19 pandemic. The final sample (i.e., those who participated in T1 and T2) was 42.31 years of age on average ($SD = 11.11$), and mostly identified as women (89.4%). In terms of relationship status, 14.0% reported being single, 14.8% in dating relationships, 62.0% married or in a civil union, and 9.2% divorced, separated or widowed. As expected, the sample was mostly highly educated: 8.9% had a technical degree, 30.7% a bachelor's or first cycle university degree, 42.5% a master's degree, and 16.4% completed doctoral or postdoctoral studies. The types of mental health professionals included in the study were quite diverse. The sample consisted of psychologists (34.6%), psychosocial counselors (18.2%), social workers (12.0%), psychoeducators (10.3%), criminologists (3.4%), sexologists (2.8%), and psychiatrists (0.8%). Of note, 17.9% of the sample reported being another type of mental health worker, citing professions such as art therapists, mental health nurses, counselors, and neuropsychologists. The sample mostly worked in the public sector (41.1%; e.g., hospitals, youth protection) or community organizations (29.3%). However, 22.9% worked in private practice. Lastly, 94.4% of the sample were currently doing clinical work as

mental health workers during the pandemic crisis: 15.9% worked exclusively in person, 59.2% exclusively in telehealth, and 23.5% in a combination of the two modalities. To assess sample bias, the T2 responders were compared to the T2 non-responders using Chi squares and t-tests on background variables (e.g., age, gender), self-care behaviors, and psychological adjustment indicators at T1. A Bonferroni correction to account for the risk of bias associated with multiple comparisons determined that the critical p -value for the t -test was 0.007. Results showed that T2 responders were significantly older ($M = 42.31$, $SD = 11.13$) than the T2 non-responders ($M = 39.72$, $SD = 11.11$; $t(730) = -3.14$, $p = .002$, Cohen's $d = .23$), but no other significant differences were found.

Participants were recruited through various professional associations of mental health professionals who shared our participation invitation to their members via email. Participants were informed that the study was confidential. These invitations also contained a link to a web platform where they completed the written consent form and the survey (approximately 30 min). As compensation for their time, participants were entered into a draw for one of three prizes of \$125. Ethics approval for the current study was obtained from the University of Quebec in Montreal Institutional Ethics Committee on Human Research where the study was conducted.

Measures

Cronbach's alpha values for all instruments can be found in [Table 1](#).

Demographics indicators

For all participants, demographic data and characteristics of their work and current clinical practice were collected.

Self-care practice

The frequency of engagement in 45 self-care behaviors over the past 30 days was measured using the *Self-Care Practice Scale* (SCPS; Bloomquist et al., 2015). This measure assesses five domains of self-care practice – physical, professional, emotional, psychological, and spiritual, with each domain including eight to twelve self-care behaviors. Participants rated the frequency with which they engaged in each using a 6-point Likert scale (0 = never to 6 = very frequently). The total score was used (possible range: 0 to 270). The SCPS was developed and validated in a sample of social workers and demonstrated strong internal consistency ($\alpha = .90$; Bloomquist et al., 2015) as was also found in our study (see [Table 1](#)).

Table 1. Average practice of self-care and levels of psychological indicators across time points.

	T1			T2			$t(357)$	p	Cohen's d
	α	M	SD	α	M	SD			
Overall Self-Care Practice	.90	150.09	25.32	.88	150.69	24.48	-0.58	.563	-0.031
Physical	-	3.73	0.74	-	3.89	0.68	-4.72	<.001	-0.250
Professional	-	3.36	0.68	-	3.37	0.65	-0.40	.688	-0.021
Emotional	-	3.66	0.75	-	3.57	0.77	2.76	.006	0.146
Psychological	-	3.30	0.80	-	3.30	0.81	0.14	.887	0.008
Spiritual	-	2.57	0.82	-	2.54	0.82	0.89	.375	0.047
Well-Being	.68	51.97	5.56	.69	52.30	5.62	-1.26	.104	-0.067
Posttraumatic Growth	.88	22.20	7.61	.88	22.02	7.71	0.52	.606	0.027
Anxiety Symptoms	.89	11.89	4.23	.90	12.56	4.62	-3.04	.003	-0.161
Depression Symptoms	.86	14.60	4.79	.87	14.99	4.82	-1.67	.097	-0.088
Compassion Fatigue	.86	45.54	9.07	.87	46.99	9.56	-3.42	<.001	-0.181

Note. Participants indicated the frequency to which they practiced each self-care behavior using the following scale: 1 (Never), 2 (Rarely – Once a Month), 3 (Sometimes – A few times a month), 4 (Often – Weekly), 5 (Very Often – A Few Times a Week), and 6 (Frequently – Almost Daily to Daily). Their mean rating for the self-care items is presented. All other scores represent the mean total score. Cohen's d benchmarks (1988) are small ($d = 0.20$), medium ($d = 0.50$), and large ($d = 0.80$) effect sizes.

Psychological adjustment indicators

Eudaimonic well-being. The short version of the *Psychological Well-Being Scale* (PWB; Ryff & Keyes, 1995) was used to measure eudemonic well-being. Only three of the six subscales were used: (1) self-acceptance, (2) purpose in life, and (3) personal growth, so as not to confound eudemonic well-being with psychological needs (e.g., Philippe et al., 2012). Participants rated their agreement with each of the nine items (e.g., “I think it is important to have new experiences that challenge how I think about myself and the world.”) on the basis of how they felt about themselves and their lives on a scale ranging from 0 to 7 (0 = strongly disagree to 7 = strongly agree). The total score could range from 0 to 63. The PWB Scale has adequate psychometric properties with distinct factors for all six subscales (Ryff & Keyes, 1995). Further, this adapted version of the PWB Scale has demonstrated good internal consistency in a previous study (Philippe et al., 2012).

Posttraumatic growth. The *Posttraumatic Growth Inventory – Short Form* (PTGI-SF; Cann et al., 2010) measures the degree to which participants experience positive changes in their lives in the aftermath of adversity. Participants rated 10 items defining changes (e.g., “I established a new path for my life.”) on a scale ranging from 0 to 5 (0 = I did not experience this change to 5 = I experienced this change to a very great degree). The total ranged from 0 to 50. The PTGI-SF has been validated in several samples (Cadell et al., 2015; Cann et al., 2010) and possesses adequate psychometric properties.

Anxiety symptoms. The *Generalized Anxiety Disorder 7* (GAD-7; Spitzer et al., 2006) assesses the presence and severity of anxiety symptoms in the past two weeks. Participants rated seven items (e.g., “Not being able to stop or control worrying”) on a Likert scale ranging from 0 to 3 (0 = not at all to 3 = nearly every day). The total score could range from 0 to 21, with a cut-off score of ≥ 10 for moderate or severe anxiety. The GAD-7 has been validated in several samples, it has demonstrated good sensitivity for generalized anxiety, panic, social anxiety and posttraumatic stress disorder, and possesses good psychometric properties (Kroenke et al., 2010).

Depressive symptoms. The Patient Health Questionnaire (PHQ-9; Kroenke et al., 2001) assesses symptoms of depression (as described in DSM-IV) over the past two weeks. Participants rated nine items (e.g., feeling down, depressed, or hopeless) on a Likert scale ranging from 0 = never to 3 = almost every day. The total score could range from 0 to 27, with a cut-off score of ≥ 10 for moderate or severe depression symptoms. A systematic review of depression measures recently identified the PHQ-9 as the most reliable screening tool for depression symptoms as it demonstrated excellent psychometric properties (El-Den et al., 2018).

Compassion fatigue. Compassion fatigue was measured using the fifth version of the *Professional Quality of Life Scale* (ProQOL-5; Stamm, 2015). This instrument includes three subscales composed of 10 items each: burnout, secondary traumatic stress, and compassion satisfaction experienced in the last 30 days. Together, burnout and secondary traumatic stress indicate the degree of compassion fatigue. Therefore, for this study, only these two compassion fatigue subscales were used. Participants rated the 20 items (e.g., “I find it difficult to separate my personal life from my life as a [helper].”) on a Likert scale ranging from 1 = never to 5 = very often. The total score was used (possible range: 30 to 150). The ProQOL-5 has been well validated and has demonstrated strong psychometric properties (Geoffrion et al., 2019; Stamm, 2015).

Data analysis

For preliminary analyses, SPSS 26.0 was used, and Mplus 7.0 was used for the cross-lagged model. There was no missing data. First, paired t-tests were performed to compare the self-

care practices and psychological adjustment of the sample at both time points. Next, Pearson correlations were conducted to test the associations between the variables of interest. Then, a two-wave cross-lagged model was constructed (see Figure 1). Two types of effects were tested: (1) autoregressive effects that examined the stability of the same variable over time; and (2) cross-lagged effects that tested the directionality of two variables over time. These cross-lagged effects allowed us to establish whether (a) self-care practice preceded psychological adjustment indicators; (b) adjustment indicators preceded self-care practice, or (c) both concepts influenced each other over the two-time points. Because an age difference was found between T2 non-responders and responders, age was entered as a control variable in the cross-lagged model.

Since a fully cross-lagged model requires the estimation of all possible path combinations, this produces a saturated model containing 0 degrees of freedom, making it impossible to obtain fit indices. Therefore, to obtain an optimal model and fit indices, it is recommended to undertake post hoc modifications to the model where nonsignificant paths are progressively removed until all paths are statistically significant, and the model is the most parsimonious (Ullman & Bentler, 2012). Finally, where reciprocal associations were found between self-care practices and a psychological adjustment indicator, a post-hoc cross lagged model was constructed to investigate how types of self-care (i.e., physical, professional, emotional, psychological, and spiritual) interacted with the indicator over time. The fit of the cross-lagged models was evaluated by several indices according to recommended guidelines (Hu & Bentler, 1999): the chi-square statistics, the root mean square error of approximation (RMSEA) < .10 (superior fit $\leq .06$), the standardized root mean squared residual (SRMR) < .10, the comparative fit index (CFI) and the Tucker-Lewis Index (TLI) > 0.90 (superior fit ≥ 0.95).

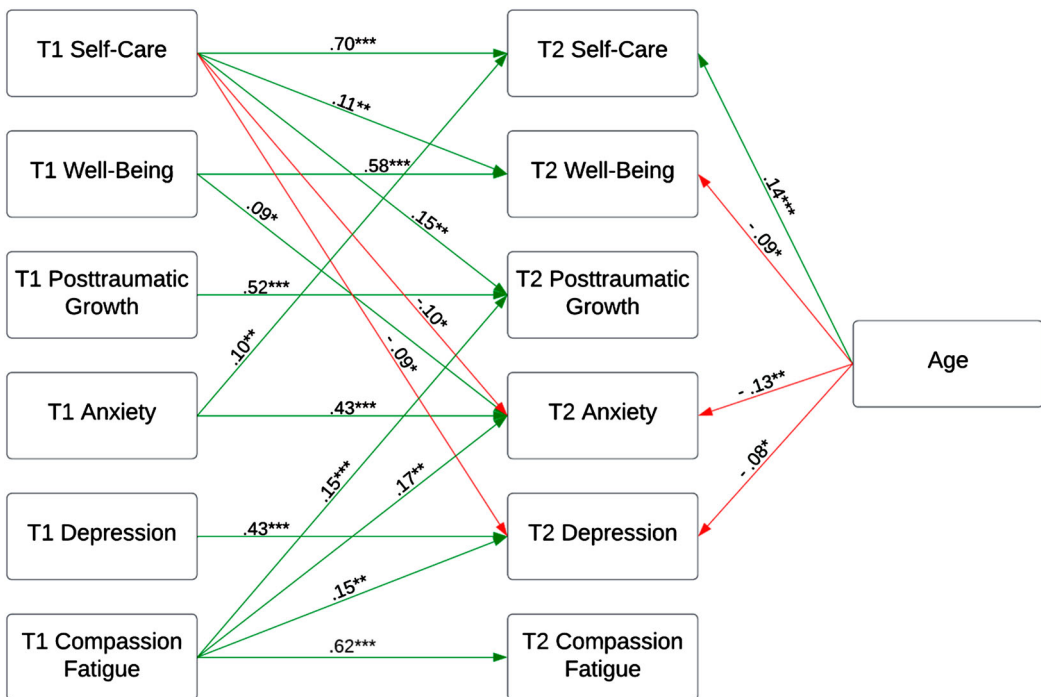


Figure 1. Two-wave cross-lagged model of self-care practice and psychological adjustment indicators.

Note. Coefficients are standardized. Covariation paths between variables at each time point have been omitted from the figure for clarity. However, they are presented in Supplementary material 2. * $p < .05$. ** $p < .01$. *** $p < .001$.

Results

Self-care practice

At both time points, the *frequency and type of self-care practices* reported by mental health professionals were similar. They reported using some self-care behaviors quite frequently while practicing others only rarely. Therefore, when considering the average frequency of all forms of self-care, mental health professionals reported that they did not routinely engage in self-care practice ($M_{T1} = 3.34$, $SD_{T1} = 0.56$; $M_{T2} = 3.35$, $SD_{T2} = 0.54$ where 3 indicates Sometimes – A few times a month). As seen in [Table 1](#), at both measurement times, physical self-care was most frequent, followed in order by emotional, professional, and psychological self-care. Spiritual self-care activities were notably less practiced than all other domains. Specifically, several activities were rated on average at a 4 or above (Often–Frequently). They included practicing healthy eating, sleeping regularly, engaging in hobbies and exercise (physical), laughing, spending time with those one enjoys (emotional), taking time to chat with colleagues, setting limits with clients, and discussing cases with colleagues (professional), taking time for reflection, setting personal goals (psychological), and spending time in nature (spiritual). A few self-care activities were rarely practiced as a whole, with an average rating of 2 or lower (Rarely–Never). These included participating in a peer support group, negotiating professional needs (e.g., benefits), participating in stress management training (professional), writing in a journal (psychological), praying, spending time in a spiritual community, and practicing yoga (spiritual). When comparing the self-care practice between the two time points, the frequency of each type of self-care was similar with the exception of physical self-care which significantly increased at T2. However, the effect size was small (Cohen's $d = 0.25$). A detailed description of mental health workers' self-care practice can be found in the Supplementary material.

Preliminary analysis

Paired T-tests examined whether changes were reported in the indicators of psychological adjustment across study waves (see [Table 1](#)). There were no statistically significant differences in the mean levels of well-being, posttraumatic growth, and depression reported by the sample. A slight increase in anxiety and compassion fatigue was found. However, effect sizes (ds of respectively -0.16 and -0.18) indicated these trends were minor. The mean, standard deviation, and intercorrelations of the study variables are shown in [Table 2](#). At both time points, self-care was significantly associated with better mental health (i.e., more well-being and post-traumatic growth, and fewer anxiety symptoms, depression symptoms, and compassion fatigue).

Cross-lagged model of self-care and psychological adjustment indicators

To investigate the directionality of associations between self-care and psychological adjustment indicators, a two-wave cross-lagged model was constructed using six variables: self-care, well-being, posttraumatic growth, anxiety symptoms, depression symptoms, and compassion fatigue. After progressively removing non-statistically significant paths, the final parsimonious model had an adequate fit, $\chi^2(358) = 48.30$, $p = .014$; $CFI = 0.98$; $TLI = 0.97$; $RMSEA = .04$ [90% CI: .02, .06]; $SRMR = .04$. The model is illustrated in [Figure 1](#) and standardized coefficients for all paths are presented in Supplementary material 2. Results indicated that all autoregressive paths were statistically significant (β s between .43 and .70) suggesting that the variables were relatively stable over time. Several cross-lagged effects were also found. Self-care practices at T1 predicted increased well-being and posttraumatic growth at T2, as well as lower anxiety and depression symptoms at T2. Only anxiety at T1 predicted more self-care practices at T2. In terms of control variables, age was associated with more self-care, less well-being, less anxiety and depression symptoms at T2.

Table 2. Descriptive statistics and correlation matrix of T1 and T2 variables entered into the cross-lagged model.

Variable	1	2	3	4	5	6	7	8	9	10	11
1. SC _{T1}	–										
2. WB _{T1}	.30***	–									
3. PTG _{T1}	.32***	.07	–								
4. Anx _{T1}	–.28***	–.31***	.05	–							
5. Dep _{T1}	–.36***	–.38***	–.01	.78***	–						
6. CF _{T1}	–.17**	–.29***	.03	.60**	.54***	–					
7. SC _{T2}	.69***	.21***	.27***	–.11*	–.18***	–.04	–				
8. WB _{T2}	.27***	.63***	.04	–.21**	–.26***	–.23***	.30***	–			
9. PTG _{T2}	.29***	.02	.58***	.11*	.07	.14***	.37***	.07	–		
10. Anx _{T2}	–.23***	–.15**	.07	.57**	.51***	.41***	–.23***	–.19***	.11*	–	
11. Dep _{T2}	–.27***	–.27***	.03	.48**	.59***	.40***	–.32***	–.36***	–.04	.71***	–
12. CF _{T2}	–.10	–.19***	.11*	.43**	.41***	.62***	–.07	–0.23***	.16**	.53***	.51***
Age	.15**	–.06	.08	–.17**	–.18***	.002	.22***	–.10*	.04	–.23***	–.03

Note. SC = Self-Care; WB = Well-Being; PTG = Posttraumatic Growth; Anx = Anxiety; Dep = Depression; CF = Compassion Fatigue. * $p < .05$. ** $p < .01$. *** $p < .001$.

Post hoc cross-lagged model of types of self-care and anxiety symptoms

Because reciprocal associations were found between self-care and anxiety symptoms, an additional cross-lagged model was constructed using the five types of self-care, physical, professional, emotional, psychological, and spiritual, and anxiety symptoms (see Figure 2). After progressively removing non-statistically significant paths, the final parsimonious model had a good fit, $\chi^2(358) = 19.35, p = .563; CFI = 1.00; TLI = 1.00; RMSEA < .001$ [90% CI: .00, .04]; $SRMR = .03$. All autoregressive paths (β s between .47 and .69) indicated that all types of self-care practice were relatively stable over time. Cross-lagged effects indicated that emotional self-care at T1 predicted decreased anxiety symptoms at T2 ($\beta = -.14$). In turn, anxiety symptoms at T1 predicted more professional self-care at T2 ($\beta = .09$).

Discussion

Using a cross-lagged model, the present study was the first to explore the longitudinal reciprocal relationships between self-care practices, well-being, posttraumatic growth, anxiety symptoms,

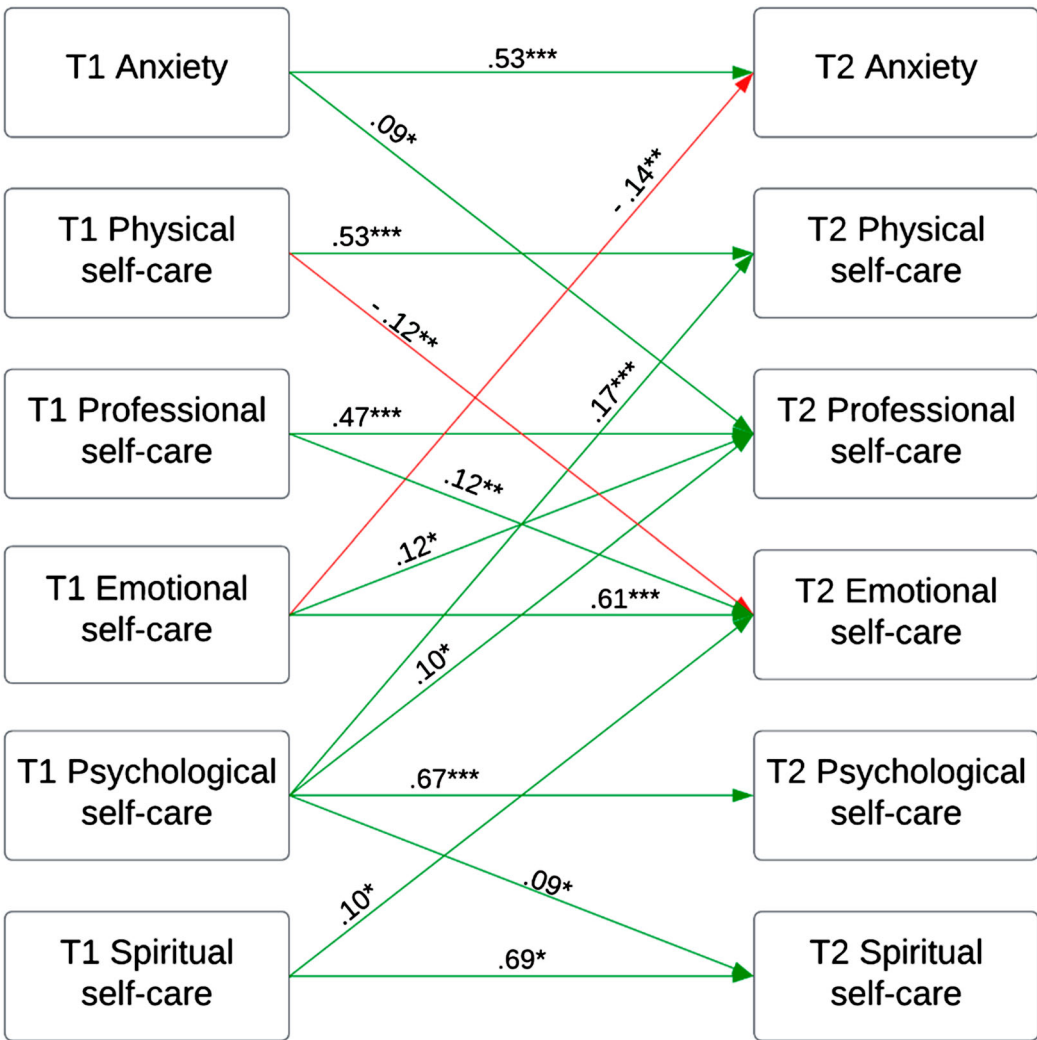


Figure 2. Post hoc two-wave cross-lagged model of type of self-care practice and anxiety symptoms.

Note. Coefficients are standardized. Covariation paths between variables at each time point have been omitted for clarity. * $p < .05$. ** $p < .01$. *** $p < .001$.

depression symptoms, and compassion fatigue in a sample of mental health professionals. The main pattern of associations found suggested that practicing self-care predicted better psychological adjustment at the second time point: professionals who practiced these strategies at T1 showed a decrease in anxiety and depression, and an increase in well-being and post-traumatic growth afterwards. This finding is very important as it supports the many theoretical conceptualizations of the expected outcomes of self-care strategies (e.g., Barnett, et al., 2009; Bloomquist et al, 2015; Posluns & Gall, 2020; Saakvitne & Pearlman, 1996). These theoretical models also suggest that self-care strategies impact both positive and negative psychological adjustment indicators. Our results provide new longitudinal support for this idea by finding that naturalistic self-care leads to both a decrease in distress and an improvement in positive aspects of mental health. Including a subjective burden or quality of life measure could better capture the overall combined effects of self-care in distress reduction and mental health improvement.

A key feature of this study is that it allowed us to investigate whether psychological adjustment indicators could also influence *how much* self-care mental health professionals implemented. A reciprocal relationship was found between self-care and anxiety symptoms: anxiety symptoms predicted an increased use of self-care at the second time point, in turn, self-care predicted a subsequent decrease in anxiety symptoms. In fact, anxiety was found to predict an increase in the amount of self-care practiced. More specifically, the post-hoc cross-lagged model indicated that anxiety predicted an increase in professional self-care at the later timepoint. This could be due to the negative activation and agitation that can accompany anxious reactions which may lead individuals to invest in self-care strategies to reduce these unpleasant sensations (Asmundson et al., 2013; Eysenck & Calvo, 1992). The finding that anxiety seems to naturally generate a boost in professional self-care could indicate that the source of this anxiety is work-related or related to work-life balance issues for instance. However, this should be investigated further. The post-hoc cross-lagged model also found that emotional self-care was most predictive of reduced anxiety over time. In contrast, there was no significant cross-lagged association between depression symptoms at T1 and subsequent self-care: symptoms of depression did not predict increased self-care; however, they did not predict a decrease in self-care either. Depressive symptoms often lead to apathy, despondency and demotivation (APA, 2013), which could explain why self-care strategies do not increase between the two time points. However, while mental health professionals do not tend to adapt their self-care strategies when struggling with depressive symptoms, self-care did appear to be a useful remedy for depression (as a significant association was found between self-care at T1 and depression at T2). Possible avenues to explore could be to promote the variety of self-care strategies, and to encourage mental health workers to explore different self-care strategies that may be less demanding and feasible even when depressive symptoms are present. Future studies should also consider other variables that could predict how much self-care mental health professionals practice. Specifically, investigating how work-related factors (e.g., workplace culture, accessibility to childcare, balance of work-life needs), or other psychological variables (e.g., assertiveness, emotional awareness, avoidant coping style, self-efficacy evaluation, guilt sensitivity) might predict the use of self-care appear to be fruitful avenues in this field of research.

Interestingly, we found that self-care did not significantly predict subsequent changes in compassion fatigue. Therefore, our results did not support the current conceptualization of self-care as an effective way of preventing the specific effects of helping people who are suffering (Figley, 2002). Previous research on this topic is limited as a review only identified nine studies on the mitigating effect of self-care on compassion fatigue, all of which were cross-sectional (Rivera-Kloepffel & Mendenhall, 2021): five of these studies did not find that self-care was strongly related to compassion fatigue. Although the mechanisms for this finding remain to be investigated, one explanation could be that self-care does not prevent professionals from *experiencing compassion fatigue* but could rather prevent compassion fatigue from turning into distress in everyday life. In fact, significant cross-lagged associations were found between compassion fatigue at T1 and anxiety and depression at T2. This supports compassion fatigue as a risk factor for mental health

professionals (Rivera-Kloeppe & Mendenhall, 2021). It also suggests that self-care strategies might not be the right and only way to prevent a syndrome as important as compassion fatigue and that more focused strategies specifically targeting relational aspects of mental health professionals' clinical practice might be relevant (e.g., Can & Watson, 2019). This could be examined in a three-time point cross-lagged model using self-care as a mediator of the association between compassion fatigue and psychological adjustment indicators.

Our results also showed another interesting cross-lagged association: a significant positive relation between compassion fatigue at T1 and posttraumatic growth at T2 ($\beta = .15$). Posttraumatic growth designates the positive changes that one can experience as a result of a painful experience: having a greater appreciation of life, a deeper self-understanding, a greater spirituality, and an improvement in the quality of social relationships (Cann et al., 2010). Therefore, our results suggest that compassion fatigue is associated with an increase in distress and posttraumatic growth over time. This aligns with Joseph, Murphy, and Regel's model of post-traumatic growth (2012) which suggests that when individuals experience psychological pain, they engage in extensive reflection about their core beliefs, attempt to narrow the cognitive gap between their expectations and reality, and seek to make sense of their experience. This cognitive work can maintain compassion fatigue but can also bolster posttraumatic growth.

Other findings are worth mentioning. First, we found that mental health professionals reported only engaging in a moderate amount of self-care at both time points. This data reaffirms the findings of other studies (e.g., Jay Miller et al., 2019) and suggests that more efforts may be needed for mental health professionals to truly adopt self-care as part of their clinical practice. Second, as both time points took place during active phases of the COVID-19 pandemic, the stable levels of each of the psychological indicators suggest that mental health professionals appeared relatively stable despite the ongoing COVID-19-related public health crisis. However, given that mental health professionals were not assessed prior to this pandemic, we do not know how their psychological adjustment might compare to pre-pandemic times. Third, we found that younger professionals practiced less self-care and suffered more anxiety and depression symptoms. This aligns with other studies that have shown that younger and less experienced clinicians are less resilient and face a greater risk of professional distress (Jennings & Skovholt, 2016); these conditions have been aggravated during the pandemic crisis (Probst et al., 2020).

In sum, this study advances current knowledge of both the psychological impact of self-care and of why mental health professionals change their self-care practices. The final cross-lagged model confirmed that self-care predicts subsequent changes in psychological adjustment. It also provides initial evidence of the reciprocal relationships between self-care practices and psychological adjustment, specifically of anxiety, over time. In fact, only one reciprocal relationship was found where anxiety symptoms and self-care practices both impacted each other over time. Knowing that there appears to be a downregulation cycle of associations between anxiety and self-care is important; when mental health professionals faced anxiety, they appeared to naturally increase their self-care, thereby experiencing a decrease in this anxiety. This might mean that more attention should be paid to helping mental health professionals combat compassion fatigue and overcome symptoms of depression, as these two forms of distress appear to not generate the boost in self-care that these professionals may need. Because mental health professionals are needed now more than ever (Galea et al., 2020) and because the mental health of these practitioners is a key determinant of their ability to provide high quality care (Laverdière et al., 2018; Salyers et al., 2017), offering early but also regular support in their career is essential for them to adopt healthy and vitalizing self-care strategies and prevent the onset of distress.

Strengths, limitations, and future research

Mental health professionals are expected to face several important challenges in the coming years (e.g., shortages of qualified staff, increased demands and more difficult clientele related to the

pandemic; Peachy et al., 2013; Rimmer, 2021). Finding ways of promoting mental health workers' well-being will be paramount: self-care could be one of the key ways of preserving their mental health. In addition to the important takeaways of this study, it fills an important gap in research. To our knowledge, this study is the first to examine (1) the longitudinal impact of naturalistic self-care on (2) both positive and negative psychological indicators of mental health, and to consider (3) whether psychological adjustment predicts the use of self-care. In fact, this study used a large sample composed of several types of mental health professionals which allowed to test a complex model. Despite these strengths, the results of the study should be interpreted with some limitations in mind. First, although a causal relationship was implied in this study, additional studies are needed to further explore the complex dynamic relationship between self-care and psychological adjustment. Specifically, considering whether mediators or moderators that could explain some of the associations found (or lack thereof) would be important. Second, as only two time points were included, some of the more complex associations could not be investigated; for instance, it would not be surprising to learn that self-care practices and anxiety operate in a cyclic pattern when assessed on multiple occasions. Third, a significant proportion of participants did not complete the second assessment. However, the participants that dropped out did not appear much different from those who completed both assessments, which suggests results remained representative. Fourth, while all types of mental health professionals were included in our sample, they were not equally represented, with some groups being overrepresented and others being underrepresented. Thus, caution should be exercised when generalizing our results to all types of mental health professionals. Lastly, the assessments of self-care and psychological adjustment were done using self-report measures for which bias is inevitable. Future studies could use more objective indicators of psychological adjustment, such as clinician or peer-rated assessments. Despite these limitations, this study sheds new light on the interrelations between self-care practices and psychological adjustment of an at-risk population during a particularly stressful period.

Acknowledgments

We sincerely thank the mental health professionals who took part in this study for their willingness to share their experience and the professional associations who kindly assisted us.

Disclosure statement

No potential conflict of interest was reported by the authors.

Funding

The author(s) reported there is no funding associated with the work featured in this article.

ORCID

Pascale Brillon  <http://orcid.org/0000-0002-0175-095X>

Michelle Dewar  <http://orcid.org/0000-0001-8492-1365>

Alison Paradis  <http://orcid.org/0000-0001-9001-0058>

Frederick Philippe  <http://orcid.org/0000-0001-6997-8072>

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). <https://doi.org/10.1176/appi.books.9780890425596>
- Asmundson, G. J., Fetzner, M. G., DeBoer, L. B., Powers, M. B., Otto, M. W., & Smits, J. A. (2013). Let's get physical: A contemporary review of the anxiolytic effects of exercise for anxiety and its disorders. *Depression and Anxiety*, 30(4), 362–373. <https://doi.org/10.1002/da.22043>

- Barnett, J. E., & Cooper, N. (2009). Creating a culture of self-care. *Clinical Psychology: Science and Practice*, 16(1), 16–20. <https://doi.org/10.1111/j.1468-2850.2009.01138.x>
- Bloomquist, K. R., Wood, L., Friedmeyer-Trainor, K., & Kim, H. W. (2015). Self-care and professional quality of life: Predictive factors among MSW practitioners. *Advances in Social Work*, 16(2), 292–311. <https://doi.org/10.18060/18760>
- Cadell, S., Suarez, E., & Hemsworth, D. (2015). Reliability and validity of a French version of the posttraumatic growth inventory. *Open Journal of Medical Psychology*, 04(02), 53–65. <https://doi.org/10.4236/ojmp.2015.42006>
- Can, N., & Watson, J. C. (2019). Individual and relational predictors of compassion fatigue among counselors-in-training. *The Professional Counselor*, 9(4), 285–297. <https://doi.org/10.15241/nc.9.4.285>
- Canadian Psychological Association. (2017). *Canadian code of ethics for psychologists* (4th ed.). ISBN 978-1-926793-11-5.
- Cann, A., Calhoun, L. G., Tedeschi, R. G., Taku, K., Vishnevsky, T., Triplett, K. N., & Danhauer, S. C. (2010). A short form of the posttraumatic growth inventory. *Anxiety, Stress & Coping*, 23(2), 127–137. <https://doi.org/10.1080/10615800903094273>
- Colman, D. E., Echon, R., Lemay, M. S., McDonald, J., Smith, K. R., Spencer, J., & Swift, J. K. (2016). The efficacy of self-care for graduate students in professional psychology: A meta-analysis. *Training and Education in Professional Psychology*, 10(4), 188–197. <https://doi.org/10.1037/tep0000130>
- Dattilio, F. M. (2015). The self-care of psychologists and mental health professionals: A review and practitioner guide. *Australian Psychologist*, 50(6), 393–399. <https://doi.org/10.1111/ap.12157>
- El-Deen, S., Chen, T. F., Gan, Y. L., Wong, E., & O'Reilly, C. L. (2018). The psychometric properties of depression screening tools in primary healthcare settings: A systematic review. *Journal of Affective Disorders*, 225, 503–522. <https://doi.org/10.1016/j.jad.2017.08.060>
- Eriksson, T., Germundsjö, L., Åström, E., & Rönnlund, M. (2018). Mindful self-compassion training reduces stress and burnout symptoms among practicing psychologists: A randomized controlled trial of a brief web-based intervention. *Frontiers in Psychology*, 9, 2340. <https://doi.org/10.3389/fpsyg.2018.02340>
- Eysenck, M. W., & Calvo, M. G. (1992). Anxiety and performance: The processing efficiency theory. *Cognition & Emotion*, 6(6), 409–434. <https://doi.org/10.1080/02699939208409696>
- Figley, C. (2002). Compassion fatigue: Psychotherapists' chronic lack of self care. *Journal of Clinical Psychology*, 58(11), 1433–1441. <https://doi.org/10.1002/jclp.10090>
- Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: the need for prevention and early intervention. *JAMA Internal Medicine*, 180(6), 817–818. <https://doi.org/10.1001/jamainternmed.2020.1562>
- Geoffrion, S., Lamothe, J., Morizot, J., & Giguère, CÉ. (2019). Construct validity of the Professional Quality of Life (ProQoL) scale in a sample of child protection workers. *Journal of Traumatic Stress*, 32(4), 566–576. <https://doi.org/10.1002/jts.22410>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55. <https://doi.org/10.1080/10705519909540118>
- Jay Miller, J., Lee, J., Niu, C., Grise-Owens, E., & Bode, M. (2019). Self-compassion as a predictor of self-care: A study of social work clinicians. *Clinical Social Work Journal*, 47(4), 321–331. <https://doi.org/10.1007/s10615-019-00710-6>
- Jennings, L., & Skovholt, T. M. (2016). *Expertise in counseling and psychotherapy: Master therapist studies from around the world*. Oxford University Press.
- Jiang, X., Topps, A. K., & Suzuki, R. (2021). A systematic review of self-care measures for professionals and trainees. *Training and Education in Professional Psychology*, 15(2), 126–139. <https://doi.org/10.1037/tep0000318>
- Joseph, S., Murphy, D., & Regel, S. (2012). An affective-cognitive processing model of post-traumatic growth. *Clinical Psychology & Psychotherapy*, 19(4), 316–325. <https://doi.org/10.1002/cpp.1798>
- Kinman, G., & Grant, L. (2020). Emotional demands, compassion and mental health in social workers. *Occupational Medicine*, 70(2), 89–94. <https://doi.org/10.1093/occmed/kqz144>
- Kleespies, P. M., Van Orden, K. A., Bongar, B., Bridgeman, D., Bufka, L. F., Galper, D. I., Hillbrand, M., & Yufit, R. I. (2011). Psychologist suicide: Incidence, impact, and suggestions for prevention, intervention, and postvention. *Professional Psychology: Research and Practice*, 42(3), 244–251. <https://doi.org/10.1037/a0022805>
- Koller, S. L., & Hicks, R. E. (2016). Psychological capital qualities and psychological well-being in Australian mental health professionals. *International Journal of Psychological Studies*, 8(2), 41–53. <https://doi.org/10.5539/ijps.v8n2p41>
- Kroenke, K., Spitzer, R. L., & Williams, J. B. (2001). The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine*, 16(9), 606–613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Kroenke, K., Spitzer, R. L., Williams, J. B., & Löwe, B. (2010). The patient health questionnaire somatic, anxiety, and depressive symptom scales: A systematic review. *General Hospital Psychiatry*, 32(4), 345–359. <https://doi.org/10.1016/j.genhosppsych.2010.03.006>
- Laverdière, O., Kealy, D., Ogrodniczuk, J. S., & Morin, A. J. (2018). Psychological health profiles of Canadian psychotherapists: A wake up call on psychotherapists' mental health. *Canadian Psychology / Psychologie Canadienne*, 59(4), 315–322. <https://doi.org/10.1037/cap0000159>
- Lee, J. J., & Miller, S. E. (2013). A self-care framework for social workers: Building a strong foundation for practice. *Families in Society: The Journal of Contemporary Social Services*, 94(2), 96–103. <https://doi.org/10.1606/1044-3894.4289>

- Manning-Jones, S., de Terte, I., & Stephens, C. (2016). Secondary traumatic stress, vicarious posttraumatic growth, and coping among health professionals: A comparison study. *New Zealand Journal of Psychology* (Online), 45(1), 20–29.
- Norcross, J. C. (2005). The psychotherapist's own psychotherapy: Educating and developing psychologists. *American Psychologist*, 60(8), 840–850. <https://doi.org/10.1037/0003-066X.60.8.840>
- Norcross, J. C., Prochaska, J. O., & Diclemente, C. C. (1986). Self-change of psychological distress: Laypersons' vs. psychologists' coping strategies. *Journal of Clinical Psychology*, 42(5), 834–840. [https://doi.org/10.1002/1097-4679\(198609\)42:5<834::AID-JCLP2270420527>3.0.CO;2-A](https://doi.org/10.1002/1097-4679(198609)42:5<834::AID-JCLP2270420527>3.0.CO;2-A)
- O'Connor, K., Neff, D. M., & Pitman, S. (2018). Burnout in mental health professionals: A systematic review and meta-analysis of prevalence and determinants. *European Psychiatry*, 53, 74–99. <https://doi.org/10.1016/j.eurpsy.2018.06.003>
- Peachey, D., Hicks, V., & Adams, O. (2013). *An imperative for change: Access to psychological services for Canada*. Health Intelligence Inc.
- Philippe, F. L., Koestner, R., Beaulieu-Pelletier, G., Lecours, S., & Leves, N. (2012). The role of episodic memories in current and future well-being. *Personality and Social Psychology Bulletin*, 38(4), 505–519. <https://doi.org/10.1177/0146167211429805>
- Posluns, K., & Gall, T. L. (2020). Dear mental health practitioners, take care of yourselves: A literature review on self-care. *International Journal for the Advancement of Counselling*, 42(1), 1–20. <https://doi.org/10.1007/s10447-019-09382-w>
- Probst, T., Humer, E., Stippl, P., & Pieh, C. (2020). Being a psychotherapist in times of the novel coronavirus disease. *Frontiers in Psychology*, 11, 559100. <https://doi.org/10.3389/fpsyg.2020.559100>
- Richards, K., Campenni, C., & Muse-Burke, J. (2010). Self-care and well-being in mental health professionals: The mediating effects of self-awareness and mindfulness. *Journal of Mental Health Counseling*, 32(3), 247–264. <https://doi.org/10.17744/mehc.32.3.0n31v88304423806>
- Rimmer, A. (2021). Mental health: Staff shortages are causing distressingly long waits for treatment, college warns. *BMJ*, 2021(375), n2439. <https://doi.org/10.1136/bmj.n2439>
- Rivera-Kloepffel, B., & Mendenhall, T. (2021). Examining the relationship between self-care and compassion fatigue in mental health professionals: A critical review. *Traumatology*. <https://doi.org/10.1037/trm0000362>
- Rossi, A., Cetrano, G., Pertile, R., Rabbi, L., Donisi, V., Grigoletti, L., Curtolo, C., Tansella, M., Thornicroft, G., & Amaddeo, F. (2012). Burnout, compassion fatigue, and compassion satisfaction among staff in community-based mental health services. *Psychiatry Research*, 200(2-3), 933–938. <https://doi.org/10.1016/j.psychres.2012.07.029>
- Rössler, W. (2012). Stress, burnout, and job dissatisfaction in mental health workers. *European Archives of Psychiatry and Clinical Neuroscience*, 262(2), 65–69. <https://doi.org/10.1007/s00406-012-0353-4>
- Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69(4), 719–727. <https://doi.org/10.1037/0022-3514.69.4.719>
- Saakvitne, K. W., & Pearlman, L. A. (1996). *Transforming the pain: A workbook on vicarious traumatization*. WW Norton & Co.
- Salyers, M. P., Bonfils, K. A., Luther, L., Firmin, R. L., White, D. A., Adams, E. L., & Rollins, A. L. (2017). The relationship between professional burnout and quality and safety in healthcare: A meta-analysis. *Journal of General Internal Medicine*, 32(4), 475–482. <https://doi.org/10.1007/s11606-016-3886-9>
- Simerly, G., & Blackhart, G. (2021). The effects of self-care on undergraduate stress. *The Undergraduate Journal of Psychology*, 32(1), 20–30. <https://doi.org/10.1037/trm0000362>
- Skovholt, T. M., Grier, T. L., & Hanson, M. R. (2001). Career counseling for longevity: Self-care and burnout prevention strategies for counselor resilience. *Journal of Career Development*, 27(3), 167–176. <https://doi.org/10.1023/A:1007830908587>
- Spitzer, R. L., Kroenke, K., Williams, J. B., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine*, 166(10), 1092–1097. <https://doi.org/10.1001/archinte.166.10.1092>
- Stamm, B. H. (2015). *The concise ProQOL manual* (2nd ed.). <https://proqol.org/>
- Tam, C. C., Ye, Z., Wang, Y., Li, X., & Lin, D. (2021). Self-care behaviors, drinking, and smoking to cope with psychological distress during COVID-19 among Chinese college students: The role of resilience. *Psychology & Health*, 1–20. <https://doi.org/10.1080/08870446.2021.2007913>
- Ullman, J. B., & Bentler, P. M. (2012). *Structural equation modeling. Handbook of psychology*. 2nd ed. John Wiley & Sons, Inc.
- Vindegard, N., & Benros, M. E. (2020). COVID-19 pandemic and mental health consequences: Systematic review of the current evidence. *Brain, Behavior, and Immunity*, 89, 531–542. <https://doi.org/10.1016/j.bbi.2020.05.048>
- Wise, E. H., & Reuman, L. (2019). Promoting competent and flourishing life-long practice for psychologists: A communitarian perspective. *Professional Psychology: Research and Practice*, 50(2), 129–135. <https://doi.org/10.1037/pro0000226>