
SHORT REPORT:

Compassion and Burnout in Psychologists During the COVID-19 Pandemic in Aotearoa

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Stress is linked to negative outcomes in health professionals including burnout and reduced compassion. The COVID-19 pandemic and associated lockdowns impacted the delivery of psychological services in Aotearoa New Zealand. Thus, psychologists had to adapt to a rapidly changing context alongside increased demand for their services. This study aimed to bridge the gap in existing literature by exploring compassion for others and burnout amongst the psychologist workforce in Aotearoa during the pandemic. In total, 195 psychologists completed the online survey. Findings revealed that burnout was present in 14% of our sample and compassion for others was high. In conclusion, although the pandemic resulted in a stressful time for health professionals, psychologists reported high compassion for others and low rates of burnout compared to healthcare professionals in other countries.

Keywords: *Keywords: Psychologist, Compassion, Burnout, Covid-19, Aotearoa.*

INTRODUCTION

The COVID-19 pandemic and associated lockdowns significantly impacted the provision of healthcare services including psychological services (Hofmeyer et al, 2020). The first COVID-19 community case was reported in Aotearoa New Zealand on 28 February 2020. Subsequently, the government placed the country under a nationwide lockdown on 26 March 2020. From May 2020 until May 2022, various regions experienced different lockdown restrictions based on local levels of community transmissions (New Zealand Government, 2022). Nationwide COVID-19 restrictions were lifted in August 2023. Although the overall number of deaths and the impact on the health system ended up being proportionately lower than many countries overseas (Mathieu et al., 2020), healthcare workers in Aotearoa may have experienced similar challenges to international colleagues who reported high levels of burnout and impacts to levels of compassion (Trumello et. al, 2020).

During the pandemic and associated lockdowns, psychologists had to adapt to the rapidly changing context of psychological practice amongst increased demand for psychological services and limited resources (Simpson et al, 2021). There are many known negative impacts of stress on health professionals including emotional exhaustion (McManus, Winder, & Gordon 2002) and increased burnout (Visser, Smets, Oort, & de Haes 2003). Several studies have negatively linked the stress resulting from the pandemic to high rates of burnout and compassion fatigue in healthcare workers (Lluch-Sanz, Galiana, Doménech-Vañó, & Sansó, 2022), however, less is known about compassion itself during times of stress. This brief report presents the findings from a study exploring the levels of compassion and burnout in the

psychologist workforce in Aotearoa during the pandemic in 2021.

Much has been written about the negative impact of COVID-19 on compassion fatigue in healthcare workers (Lluch-Sanz, Galiana, Doménech-Vañó, & Sansó, 2022), however, there has been almost no focus on compassion itself. Given that compassion has been described as a cornerstone of effective clinical practice in healthcare (Fernando & Consedine, 2014), the impacts of the COVID-19 pandemic on psychologists' compassion remains unexplored. Compassion refers to holding understanding and sensitivity towards others' suffering and having the motivation to alleviate that suffering (Sinclair et al, 2016). Fostering compassion in the therapeutic alliance is associated with enhanced therapist-client relationships and treatment outcomes (Kemp et al, 2021; Vivino et al, 2009). Psychologists in Aotearoa have an obligation under the Health Practitioners Competence Assurance Act (2003) to deliver safe, ethical, and compassionate healthcare, and psychologists are also mandated to conduct compassionate psychological practice, as highlighted within the Code of Ethics (New Zealand Psychologists Board, 2002).

While compassion to help others likely draws people to the practice of psychology, burnout can cause people to leave it. Burnout is classified as a syndrome of emotional exhaustion and depersonalisation (Lahana et al, 2017). Individuals who work in areas grounded in human suffering may experience burnout due to the demands of their roles (Kase et al, 2019; Perez-Chacon et al, 2021). Burnout is associated with poor quality of life, poor psychological wellbeing, negative attitudes regarding work and suboptimal performance (Rahdar et al, 2020). Thus, avoiding burnout within healthcare practice is essential. Prior evidence has illustrated a high prevalence

of burnout and emotional exhaustion among psychologists (Delgadillo et al, 2018; O'Connor et al, 2018; McCormack et al, 2018). Factors associated with a higher risk of burnout within the psychologist workforce include lack of agency in the work setting, poor mental resilience, an external locus of control and a lack of acknowledgement and/or appropriate remuneration (Maslach & Leiter, 2017; Simpson et al, 2019; Yang & Hayes, 2020). During the pandemic, an increased prevalence of burnout was reported by psychologists globally (Serrão et al, 2022; Trombello et al, 2022). It is plausible that the stress associated with the COVID-19 pandemic may have also exacerbated the experience of burnout amongst psychologists in Aotearoa.

Despite previous studies noting the impacts of burnout and compassion on healthcare workers and psychologists overseas, there is a lack of literature examining whether the COVID-19 pandemic impacted the psychologist workforce in Aotearoa New Zealand. Thus, this paper aimed to bridge this gap and provide a snapshot of psychologists' experience of compassion for others and burnout during the pandemic in Aotearoa New Zealand.

METHOD

Design

The aim of this study was to explore the levels of compassion and burnout in the psychologist workforce in Aotearoa during the pandemic. A cross-sectional online survey of registered psychologists in Aotearoa was undertaken. Ethical approval for this study was obtained by the Auckland Health Research Ethics Committee on 09/03/2021 for three years (REF: #AH22139). Data were collected between 20/07/2021 and 12/11/2021 during which time the entire country was at various stages of lockdown with Auckland under the most stringent restrictions at Alert Level 3 and 4 (New Zealand Government, 2022). The 7-day rolling average of confirmed daily cases over this time increased rapidly from 2 at the start of data collection to approximately 177 by mid-November when data collection was completed (Mathieu et al., 2020).

Participants

In Aotearoa, psychologists can register under 'scopes of practice'. Scopes of practice include psychologist, clinical psychologist, counselling psychologist, educational psychologist, neuropsychologist, intern psychologist and trainee psychologist (New Zealand Psychologists Board, 2022). Each scope has detailed competencies and guidelines to inform the delivery of psychological practice. Therefore, the inclusion criteria for the study were developed to include psychologists who are registered under any scope of practice.

The inclusion criteria for the study were that participants needed to 1) be registered with the New Zealand Psychologists Board

under any scope of practice (including 'intern psychologist'), 2) hold an annual practicing certificate, 3) work within any setting in Aotearoa and 4) speak English.

A total of 195 participants completed the study. A breakdown of demographic and professional characteristics is illustrated in Table 1. The sample were primarily New Zealand European ($n = 129$, 66%), female ($n = 171$, 88%) and registered under the 'psychologist' scope of practice ($n = 78$, 40%).

Measures

The adapted version (Baguley, 2020) of the 24-item Compassion Scale (Pommier, Neff & Tóth-Király, 2020) was used in this study to measure compassion for others. Baguley (2020) adapted the scale to measure compassion in healthcare workers by adding the item "I actively try to alleviate patients suffering or distress". For the current study, items encompassing the term 'patient' were replaced with 'people/person' as some psychologists may not encounter 'patients' in their practice.. This 25-item scale asked psychologists to rate themselves on a 7-point Likert scale from 1 'Not true of me' to 7 'Very true of me'. Example items included 'I realise when people are upset, even if they don't say anything', 'I like to be there for people in times of difficulty' and 'My heart goes out to people who are unhappy'. Negatively worded items were reverse scored and the mean score of the 25 items

Table 1. Demographic and professional characteristics of participants ($N = 195$).

Characteristic	n	%
Ethnicity		
NZ European	129	66%
Māori	17	9%
Pacific Peoples	0	0%
Asian	15	8%
MELAA	5	3%
Other European	26	14%
Other Ethnicity	3	1%
Age group		
24-35	72	37%
36-45	59	30%
46-55	33	17%
56-65	20	10%
Over 65 years	11	6%
Gender		
Male	24	12%
Female	171	88%
Scopes of practice		
Psychologist	78	40%
Intern psychologist	25	13%
Clinical psychologist	75	39%
Other scope	17	9%
Years of practice		
<5	84	43%
>5	111	57%

MELAA (Middle Eastern/Latin American/African)

provided a total compassion score between 1 and 7 where higher scores indicate greater compassion. The Compassion Scale has demonstrated construct, divergent, discriminant, and convergent validity (Baguley, 2020).

To minimise participant burden, burnout was assessed using the single item Maslach Burnout Inventory – Emotional Exhaustion (MBI-EE; Dolan et al., 2015) which has previously shown to have moderate convergent validity ($r = 0.64$) with emotional exhaustion (Dolan et al., 2015; Rohland et al., 2004). The single item has been successfully used in samples of medical students, general practice physicians, and practicing surgeons as a measure of physician burnout (West et al., 2009). Participants were asked to report the extent to which they feel the following statement reflects them in relation to their work: “I feel burned out from my work” answered on a 7-point scale from 0 (‘Never’) to 7 (‘Everyday’). For the MBI-EE single item, higher scores represent greater burnout and scores of 4 (‘Once a week’) or more indicate “high levels of burnout” (Dolan et al., 2015).

Procedure

Convenience sampling techniques including professional mailing lists, snowballing sampling techniques, professional social media groups and word of mouth were employed to recruit participants. Online study advertising and emails about the study contained the survey link hosted by the online platform Qualtrics. When participants clicked on the survey link, they were redirected to the Participant Information Sheet which included study details and researcher contact information. Participation was voluntary and consent was assumed upon the submission of the anonymous survey. The survey questions covered the following: screening, demographics, psychological practice, compassion for others and burnout. The survey also included questions related to digital competence and use of digital technologies in practice which is published elsewhere (Dobson, Variava, Douglas & Reynolds, 2022). At the conclusion of the survey, participants could choose to be entered into the prize draw to win an iPad. The survey was estimated to take approximately 10 to 15 minutes to complete and was identical for all participants (no randomized items). Participants were able to review and alter their responses before submission.

Statistical Analysis

Statistical analyses were conducted using the Statistical Package for the Social Sciences (IBM SPSS Statistics V.28)

Table 2. Differences in Compassion scores across years of practice and scopes.

Compassion	Mean score	Statistical test
Years of practice		
>5	6.04 (.44)	$t = -1.80 (p = .07)$
<5	6.15 (.42)	
Scope of practice		
Psychologist	6.20 (.44)	$F = 2.90 (p = .04)$
Clinical Psychologist	6.08 (.41)	
Intern Psychologist	5.93 (.42)	
Other scope	6.00 (.43)	

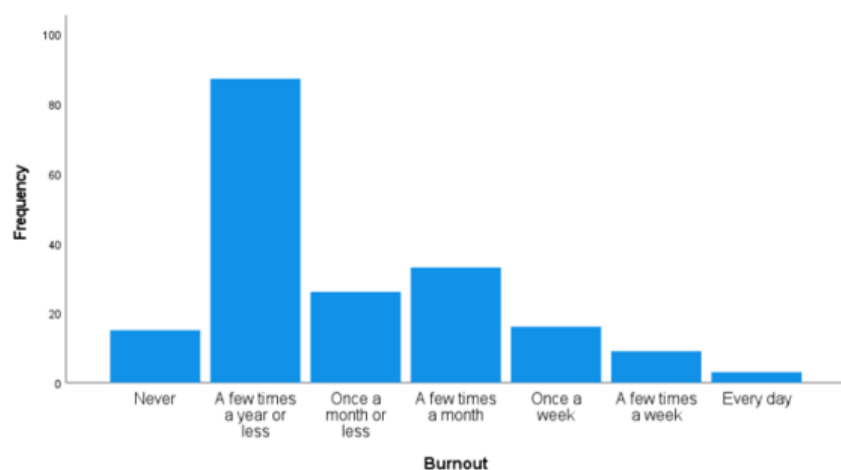
software. Data collected from the survey was analysed and summarized using descriptive quantitative analyses. Means and standard deviations were calculated for items on the Compassion Scale, and the MBI-EE. To assess whether there were differences in compassion and burnout across scopes and years of practice, χ^2 tests, ANOVA and t-tests were conducted. Ethnicity was coded as per the New Zealand Ministry of Health Protocol for Reporting of Ethnicity Data, with the 'prioritised ethnicity' output method used for reporting in this paper (Ministry of Health, 2017). No timeframe was imposed on participants to complete the questionnaire, cookies were not used to assign identifiers to each computer, and IP address information and view rates were not recorded. Adaptive questioning was not used within the survey. Multiple submissions were prevented on Qualtrics and further manual checks for multiple entries were also performed.

RESULTS

Compassion for others

The overall mean score on the Compassion Scale was 6.10 ($SD = 0.43$). Given the total possible mean was 7, this score suggests high self-reported compassion for others within this sample. Although there was no difference in compassion across years of practice, there was a difference in compassion across scopes (Table 2). Tukey HSD post-hoc tests revealed that the mean score for psychologist (mean = 6.20, $SD = .44$) was significantly higher than intern psychologist (mean = 5.93, $SD = .42$). No other differences across scopes were significant. Given the possibility that the difference in compassion

Figure 1. Bar graph illustrating the Frequency of Burnout ($N = 189$)



between intern psychologists and psychologists might have been a factor of age, we ran an alternative model replacing scopes of practice with trichotomized age (24-35 years vs. 36-45 years vs. 46 years and older). The results of this model revealed no differences in compassion across age groups.

Burnout

A total of 189 participants completed the single-item MBI:EE measure (Figure 1), with 14.8% ($n = 28$) of participants reporting high levels of burnout according to the measure criterion (Dolan et al, 2015; West et al, 2012). The mean burnout score was 2.93 ($SD = 1.41$). There were no significant differences in frequency of burnout between scope or years of practice (Table 3). Contrary to expectations, burnout and compassion were not associated with each other ($r = .09$, $p = .20$).

DISCUSSION

Findings from the current study offer insights into the levels of compassion for others and burnout amongst psychologists during the COVID-19 pandemic. Although recent times have been stressful for the healthcare workforce, promisingly, psychologists reported high compassion for others. Based on these findings, it appears that psychologists are upholding their obligations to provide compassionate care to their clients (New Zealand Psychologists Board, 2002), amidst a challenging context of psychological practice.

However, it is noteworthy that there was a difference in compassion between intern psychologists and those registered under the general scope. Although relevant literature in this area is scarce, the finding does align with one study that showed differences between students and fully trained health professionals in reports of feeling caring and being willing to help across various hypothetical patient scenarios (Reynolds et al., 2019). Although our parallel analyses showed that neither clinical experience nor age explain the discrepancy between fully and partially trained psychologists, another possibility remains. Intern psychologists face a steep learning curve that can be challenging and stressful (Gilmore & Campbell, 2019) and it seems plausible that one of the costs of this period of rapid self-development, might be in the capacity to focus on others. This hypothesis requires further investigation. Another question worthy of further exploration is the extent to which training to become a psychologist via online channels, as was required by interns during lockdowns, might have impacted the development of compassion. It is also important to note that our survey was a single snapshot of time which inhibits our ability to determine whether our findings reflect the global pandemic context or whether interns might have consistently lower compassion during other time periods. Further investigation of these possibilities is warranted given the impact of such challenges not only to interns themselves but also to their clients.

We also found high levels of burnout in 14% of our sample. This finding is lower than expected given that burnout rates during COVID-19 of between 30-66% have been reported in healthcare workers in other countries (Dobson, et al., 2021; Melnyk et al., 2022). More

specifically relevant to our study, 37% of a sample of Portuguese psychologists met the criteria for work-related burnout during the first wave of COVID-19 (Serrao et al., 2022) and 28% of Australian psychologists met the criteria for burnout prior to COVID-19 (McCade, Frewen & Fassnacht, 2021). Whilst our relatively lower rates of burnout might seem positive, especially given the impact of COVID-19, any risks to diminishing a workforce that is over-stretched and where there is a marked workforce shortage (RNZ, 2022) is concerning. Tracking rates of burnout over time to assess the well-being of this workforce seems a worthy area of investigation.

The findings from this study must be interpreted in light of its limitations. Firstly, this was a cross-sectional survey, precluding causal analyses. Secondly, the impact of the pandemic on participants was not assessed and nor were other factors related to burnout and compassion for others, limiting interpretation of these results. Next, the findings may not be generalisable to the broader psychologist population; the sample ($N=195$) was approximately only 6% of the total psychologist workforce with a current practicing certificate in Aotearoa ($N=3,199$; New Zealand Psychologists Board, 2020). Finally, it is important to note that due to the study only including self-reported data, results may be limited by social desirability bias (Kuncel & Tellegen, 2009; Podsakoff et al., 2003; Podsakoff et al., 2012). As the Code of Ethics highlights psychologists' duty to provide ethical and safe practice, delivering compassionate care is an explicit expectation of psychological practice (New Zealand Psychologists Board, 2002). Thus, participating psychologists may have felt compelled to respond in a socially desirable manner e.g., reporting higher compassion for others and lower burnout. Lastly, it is important to note the timing of the current study. During recruitment, various regions in New Zealand were under different lockdown restrictions due to active community cases. These restrictions may have led to heightened workloads and increased pressure, which may have influenced findings. Due to these limitations, findings from the current study must be interpreted with caution.

Conclusion

The aim of the current study was to explore compassion for others and burnout amongst the psychologist workforce in Aotearoa during the COVID-19 pandemic. Our findings highlighted that although burnout was present in 14% of our sample, compassion for others remained high. Overall, although the pandemic was a stressful time for psychologists given increased demands amidst the changing landscape of psychological practice, it is reassuring that compassion for others remained high within this sample.

References

- Baguley, S. (2020). *To Care and to Feel Cared for: A Study of Compassion in Patients and Their Doctors* [Master's thesis]. The University of Auckland Research Repositories, ResearchSpace. <https://researchspace.auckland.ac.nz/handle/2292/56293>
- Delgadillo, J., Saxon, D., & Barkham, M. (2018). Associations between therapists' occupational burnout and their patients' depression and anxiety treatment outcomes. *Depression and Anxiety, 35*(9), 844–850. <https://doi.org/10.1002/da.22766>
- Dobson, H., Malpas, C. B., Burrell, A. J. C., Gurvich, C., Chen, L., Kulkarni, J., & Winton-Brown, T. (2021). Burnout and psychological distress amongst Australian healthcare workers during the COVID-19 pandemic. *Australasian Psychiatry, 29*(1), 26–30. <https://doi.org/10.1177/1039856220965045>
- Dobson, R., Variava, R., Douglas, M., & Reynolds, L. M. (2022). Digital competency of psychologists in Aotearoa New Zealand: A cross-sectional survey. *Frontiers in Digital Health, 2*. <https://doi.org/10.3389/fdgh.2022.951366>
- Dolan, E. D., Mohr, D., Lempa, M., Joos, S., Fihn, S. D., Nelson, K. M., & Helfrich, C. D. (2015). Using a single item to measure burnout in primary care staff: A psychometric evaluation. *Journal of General Internal Medicine, 30*(5), 582–587. <https://doi.org/10.1007/s11606-014-3112-6>
- Fernando III, A. T., & Consedine, N. S. (2014). Beyond compassion fatigue: The transactional model of physician compassion. *Journal of Pain and Symptom Management, 48*(2), 289–298. <http://dx.doi.org/10.1016/j.jpainsymman.2013.09.014>
- Gilmore, L., & Campbell, M. (2019). "It's a lot trickier than I expected": Assessment issues and dilemmas for Intern Psychologists. *Educational and Developmental Psychologist, 36*(1), 3–7. <https://doi.org/10.1017/edp.2019.3>
- Hofmeyer, A., Taylor, R., & Kennedy, K. (2020). Fostering compassion and reducing burnout: How can health system leaders respond in the Covid-19 pandemic and beyond? *Nurse Education Today, 94*, 104502. <http://dx.doi.org/10.1016/j.nedt.2020.104502>
- Kase, S. M., Waldman, E. D., & Weintraub, A. S. (2019). A cross-sectional pilot study of compassion fatigue, burnout, and compassion satisfaction in pediatric palliative care providers in the United States. *Palliative & Supportive Care, 17*(3), 269–275. <https://doi.org/10.1017/S1478951517001237>
- Kemp, E., Trigg, J., Beatty, L., Christensen, C., Dhillon, H. M., Maeder, A., Williams, P. A. H., & Koczwara, B. (2021). Health literacy, digital health literacy and the implementation of digital health technologies in cancer care: the need for a strategic approach. *Health Promotion Journal of Australia, 32*, 104–114. <https://doi.org/10.1002/hpia.387>
- Kuncel, N. R., & Tellegen, A. (2009). A conceptual and empirical reexamination of the measurement of the social desirability of items: Implications for detecting desirable response style and scale development. *Personnel Psychology, 62*(2), 201–228. <https://doi.org/10.1111/j.1744-6570.2009.01136.x>
- Lahana, E., Papadopoulou, K., Roumeliotou, O., Tsounis, A., Sarafis, P., & Niakas, D. (2017). Burnout among nurses working in social welfare centers for the disabled. *BMC Nursing, 16*(1), 15. <https://doi.org.ezproxy.auckland.ac.nz/10.1186/s12912-017-0209-3>
- Lluch-Sanz, C., Galiana, L., Doménech-Vañó, P., & Sansó, N. (2022). The Impact of the COVID-19 Pandemic on burnout, compassion fatigue, and compassion satisfaction in healthcare personnel: A systematic review of the literature published during the first year of the pandemic. *Healthcare, 10*(2), 364. <https://doi.org/10.3390/healthcare10020364>
- Maslach, C., & Leiter, M. P. (2017). Understanding burnout: New models. *The Handbook of Stress and Health: A Guide to Research and Practice, 36–56*. <https://doi.org/10.1002/9781118993811.ch3>
- Mathieu, E., Ritchie, H., Rodes-Guirao, L., Appel, C., Hasell, J., Macdonald, B., Dattani, S., Beltekian, D., Ortiz-Ospina, E., & Roser, M. (2020). *Coronavirus Pandemic (COVID-19)*. OurWorldInData.Org. <https://ourworldindata.org/coronavirus#coronavirus-country-profiles>
- McCade, D., Frewen, A., & Fassnacht, D. B. (2021). Burnout and depression in Australian psychologists: The moderating role of self-compassion. *Australian Psychologist, 56*(2), 111–122. <https://doi.org/10.1080/00050067.2021.1890979>
- McCormack, H. M., MacIntyre, T. E., O'Shea, D., Herring, M. P., & Campbell, M. J. (2018). The prevalence and cause(s) of burnout among applied psychologists: A systematic review. *Frontiers in Psychology, 9*, 1897. <https://doi.org/10.3389/fpsyg.2018.01897>
- McCormick, K. (2014). *Restoring and Strengthening Resilience in the Psychology Profession: The Rio Model of Resilience for Psychologists*. [University of Auckland]. <https://researchspace.auckland.ac.nz/bitstream/handle/2292/23329/whole.pdf>
- McManus, I. C., Winder, B. C., & Gordon, D. (2002). The causal links between stress and burnout in a longitudinal study of UK doctors. *The Lancet, 359*, 2089–2090. [https://doi.org/10.1016/S0140-6736\(02\)08915-8](https://doi.org/10.1016/S0140-6736(02)08915-8)
- Melnyk, B. M., Hsieh, A. P., Tan, A., Teall, A. M., Weberg, D., Jun, J., Gawlik, K., & Hoying, J. (2022). Associations among nurses' mental/physical health, lifestyle behaviors, shift length, and workplace wellness support during COVID-19: Important implications for health care systems. *Nursing Administration Quarterly, 46*(1), 5–18. <https://doi.org/10.1097/NAQ.0000000000000499>
- Ministry of Health. (2003). *Health Practitioners' Competence Assurance Act 2003*. <http://www.legislation.govt.nz/act/public/2003/0048/latest/DLM203312>
- Ministry of Health. (2017). *Ethnicity Data Protocols*. https://www.health.govt.nz/system/files/documents/publications/hiso_10001-2017_ethnicity_data_protocols_may-21.pdf
- New Zealand Government. (2022). History of the COVID-19 Alert System. Unite against COVID-19. In *Covid19.Govt.Nz*. <https://covid19.govt.nz/about-our-covid-19-response/history-of-the-covid-19-alert-system/>
- New Zealand Psychologists Board. (2002). *Code of Ethics*. <https://www.psychology.org.nz/journal-archive/code-of-ethics.pdf>
- New Zealand Psychologists Board. (2020). *Annual Report 1 April 2019 – 31 March 2020*. <https://psychologistsboard.org.nz/wp-content/uploads/2021/07/NZPB-Annual-Report-2020-Final.pdf>
- 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>
- Perez-Chacon, M., Chacon, A., Borda-Mas, M., & Avargues-Navarro, M. L. (2021). Sensory processing sensitivity and compassion satisfaction as risk/protective factors from burnout and compassion fatigue in healthcare and education professionals. *International Journal of Environmental Research and Public Health*, 18(2), 611.
<http://dx.doi.org/10.3390/ijerph18020611>
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879. <http://dx.doi.org/10.1037/0021-9010.88.5.879>
- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual Review of Psychology*, 63, 539–569.
<https://doi.org/10.1146/annurev-psych-120710-100452>
- Pommier, E., Neff, K. D., & Tóth-Király, I. (2020). The development and validation of the Compassion Scale. *Assessment*, 27(1), 21–39.
<https://doi.org/10.1177/1073191119874108>
- Rahdar, S., Khajouei, R., & Mirzaee, M. (2020). Determining the effect of electronic health literacy on job burnout in the staff of health information management. *Journal of Advanced Pharmacy Education & Research*, 10(S1), 93.
- Reynolds, L. M., Powell, P., Lin, Y. S., Ravi, K., Chung, C. K., & Considine, N. S. (2019). Fighting the flinch : Experimentally induced compassion makes a difference in health care providers. *British Journal of Health Psychology*, 1–17. <https://doi.org/10.1111/bjhp.12390>
- RNZ. (2022). Wellington at top of list for widespread shortage of psychologists. *RNZ News*.
<https://www.rnz.co.nz/news/national/464457/wellington-at-top-of-list-for-widespread-shortage-of-psychologists>
- Rohland, B. M., Kruse, G. R., & Rohrer, J. E. (2004). Validation of a single-item measure of burnout against the Maslach Burnout Inventory among physicians. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 20(2), 75–79.
<https://doi.org/10.1002/smi.1002>
- Serrão, C., Rodrigues, A. R., Teixeira, A., Castro, L., & Duarte, I. (2022). The impact of teleworking in psychologists during COVID-19: Burnout, depression, anxiety, and stress. *Frontiers in Public Health*, 10, 984691. <https://doi.org/10.3389/fpubh.2022.984691>
- Simpson, S., Richardson, L., Pietrabissa, G., Castelnovo, G., & Reid, C. (2021). Videotherapy and therapeutic alliance in the age of COVID-19. *Clinical Psychology & Psychotherapy*, 28(2), 409–421. <https://doi.org/10.1002/cpp.2521>
- Simpson, S., Simionato, G., Smout, M., van Vreeswijk, M. F., Hayes, C., Sougleris, C., & Reid, C. (2019). Burnout amongst clinical and counselling psychologist: The role of early maladaptive schemas and coping modes as vulnerability factors. *Clinical Psychology & Psychotherapy*, 26(1), 35–46.
<https://doi.org/10.1002/cpp.2328>
- Sinclair, S., McClement, S., Raffin-Bouchal, S., Hack, T. F., Hagen, N. A., McConnell, S., & Chochinov, H. M. (2016). Compassion in health care: an empirical model. *Journal of Pain and Symptom Management*, 51(2), 193–203. <http://dx.doi.org/10.1016/j.jpainsymman.2015.10.009>
- Trombello, J. M., David, N. S., Robbins, M. A., & Ruchinskas, R. A. (2022). Burnout during the COVID-19 pandemic: Descriptive and predictive data from a survey of psychologists at a single academic medical center. *Academic Psychiatry*, 46(6), 718–722.
<https://doi.org/10.1007/s40596-021-01562-4>
- Trumello, C., Bramanti, S. M., Ballarotto, G., Candelori, C., Cerniglia, L., Cimino, S., Crudele, M., Lombardi, L., Pignataro, S., Viceconti, M. L., & Babore, A. (2020). Psychological adjustment of healthcare workers in Italy during the COVID-19 pandemic: Differences in stress, anxiety, depression, burnout, secondary trauma, and compassion satisfaction between frontline and non-frontline professionals. *International Journal of Environmental Research and Public Health*, 17(22), 1–13.
<https://doi.org/10.3390/ijerph17228358>
- Visser, M. R. M., Smets, E. M. A., Oort, F. J., & de Haes, H. C. (2003). Stress, satisfaction and burnout among Dutch medical specialists. *Canadian Medical Association Journal*, 168, 271–275
- Vivino, B. L., Thompson, B. J., Hill, C. E., & Ladany, N. (2009). Compassion in psychotherapy: The perspective of therapists nominated as compassionate. *Psychotherapy Research*, 19(2), 157–171.
<http://dx.doi.org/10.1080/10503300802430681>
- West, C. P., Dyrbye, L. N., Satele, D. V., Sloan, J. A., & Shanafelt, T. D. (2012). Concurrent validity of single-item measures of emotional exhaustion and depersonalization in burnout assessment. *Journal of General Internal Medicine*, 27(11), 1445–1452.
<http://dx.doi.org/10.1007/s11606-012-2015-7>
- West, C. P., Dyrbye, L. N., Sloan, J. A., & Shanafelt, T. D. (2009). Single item measures of emotional exhaustion and depersonalization are useful for assessing burnout in medical professionals. *Journal of General Internal Medicine*, 24(12), 1318–1321.
<http://dx.doi.org/10.1007/s11606-009-1129-z>
- Yang, Y., & Hayes, J. A. (2020). Causes and consequences of burnout among mental health professionals: A practice-oriented review of recent empirical literature. *Psychotherapy*, 57(3), 426.
<https://doi.org/10.1037/pst0000317>

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