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An Exploratory Analysis of Stress, Burnout, and Depression in the IECMH Workforce

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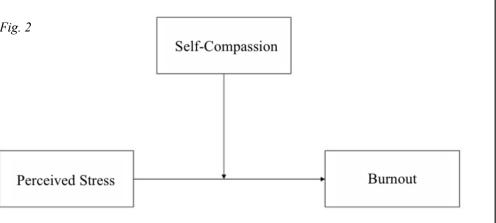
An Exploratory Analysis of Stress, Burnout, and Depression in the IECMH Workforce

Tommy Boyer, Jess Potter-Rodriguez, Hannah Winston, Diana Morelen, Ph.D., IMH-E

College of Arts and Sciences, Department of Psychology

Introduction	Aimo	2 Hypotheses	Results					
	Aims & Hypotheses			Kesuits				
	Aim 1 : To describe the relationship between Perceived Stress, Burnout, and Depression in the IECMH workforce		Table 1 - Descriptives	Scoring ranges		M	SD	
	Aim 2 : To investigate the contribution of Depression on the relationship between Perceived Stress and			Perceived Stress	0 - 40	1	6.83*	6.56
	Burnout.			Burnout	10 - 50	2	21.23	5.62
	H1 : The Perceived Stress, Burnout, and Depression variables will correlate significantlyH2. : The correlations between Perceived Stress,			Depression0 - 6010.776.14* Indicates score within 'moderate' range				
	Burnout, and Depression will correlate in the positive direction			Table 2 – Correlation		1	2	3
	H3 : A moderation analysis (figure 1) will yield a significant effect, and will produce a significant interaction term			(1) Perceive			.70**	.80**
					(2) Burnout .70 ³			.59**
				(3) Depre	ession	.80**	.59**	_
				** Correlations significant at the p<.01 level				
	Fig. 1 Depression Perceived Stress Burnout			 Participants of the study scored below thresholds of significance on measurements on Burnout and Depression, but scored within a moderate range on measures of Perceived Stress The study variables correlated in their expected directions, and a high thresholds of significance (<i>p</i><.01) (table 2) 				
Methods	Measures			• Due to high colineraity, the originally proposed moderation analysis of Depression on Perceived Stress				
	Construct	Measure	Items	x Burnout could not be justified.An exploratory moderation (figure 2) was performe				
	Stress Perceived Stress Scale 10			instead, and the overall model was significant (F(3, 99) = 65.08, R^2 = .66, $p < .001$), the interaction term of Self-Compassion was also significant (R^2 change = 04 , $n = .001$)				
	Occupational Burnout	Professional Quality of Life Scale – Burnout subscale (ProQOL)	30	.04, p = .001). Fig. 2				
	Depression	Center for Epidemiological Studies Depression Scale (CESD)	ession Scale 20					
	Self-compassion	Self-Compassion Scale– Short Form (SCS–SF)	12	Perceived Stress Burnout				





Discussion

- In our sample, participants scored within "low" parameters on both Depression and Burnout metrics, however, Perceived Stress scores were within "moderate" parameters.
- Perceived Stress, Depression, and Burnout were all found to be significantly related highly predictive of each other
- A moderation analysis between Depression and Perceived Stress could not be performed due to high colinearity
- Instead, an exploratory moderation analysis found that Self-Compassion exhibited a strong influence on the relationship between Perceived Stress and Burnout
- Specifically, the relationship between stress (x) and burnout (y) remained significant across all levels of self-compassion, but the strength of the relationship between x and y was strongest when self-compassion was low and weakest when self-compassion was high
- This finding suggests that, in this sample, Self-Compassion acted as a buffer (protective factor) against the effect of Burnout resulting from Perceived Stress
- Future research should investigate if this finding replicates in other samples, and to what magnitude.

References

- Alkema, K., Linton, J., & Davies, R. (2008). A study of the relationship between self-care, compassion fatigue, and burnou among hospice professionals. Journal of Social Work in End-of-Life and Palliative Care, 4(2), 101–119.
 Imgartner, J., Carson, R. L., Apavaloaie, L., & Tsouloupas, C. (2009). Uncovering common stressful factors and coping strategies among child care providers. Child Youth Care Forum, 38, 239-251. https://doi.org/10.1007/s10566-
- Buselli, R., Corsi, M., Baldanzi, S., Chiumiento, M., Del Lupo, E., Dell'Oste, V., Bertelloni, C. A., Massimetti, G., Dell'Osso, L., Cristaudo, A., & Carmassi, C. (2020). Professional Quality of Life and Mental Health Outcomes
- among Health Care Workers Exposed to Sars-Cov-2 (Covid-19). Inte environmental research and public health, 17(17), 6180. https://doi.org/10.3390/ijerph17176180
- 4. Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. Journal of health and social behavior, 24(4), 385–396.
- 5. Cohen, S., & Williamson, G. M. (1988). Perceived stress in a probability sample of the United States. In (S. Spacapam & S. Oskamp Eds.), The social psychology of health (pp. 31-67). Sage.
- 6. Faulkner, M., Gerstenblatt, P., Lee, A., Vallejo, V., & Travis, D. (2016). Child care providers: Work stress and personal well-being. Journal of Early Childhood Research, 14(3), 280-293. https://doi.org/10.1177/1476718x14552871 Griner, P. F. (2013). Burnout in health care providers. Integrative Medicine, 12(1), 22-24.
- Google Scholar 8. Haghighi, M., & Gerber, M. (2019). Does mental toughness buffer the relationship between perceived stress, depression, burnout, anxiety, and sleep? International Journal of Stress Management, 26(3), 297-
- 305. https://doi.org/10.1037/str0000106 Haves, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis. The Guilford Press. 9 Hricova, M., Nezkusilova, J., & Raczova, B. (2020). Perceived stress and burnout: The mediating role of psychological,
- professional self-care and job satisfaction as preventative factors in helping professions. European Journal of Mental Health, 15, 3-22. https://doi.org/10.5708/EJMH.15.2020.1 11. Koutsimani, P., Montgomery, A., & Georganta, K. (2019). The Relationship Between Burnout, Depression, and Anxiety: A Systematic Review and Meta-Analysis. Frontiers in psychology, 10, 284.
- https://doi.org/10.3389/fpsyg.2019.00284 Major Depression. ((2019), February). NIMH. https://www.nimh.nih.gov/health/sta 12. 13. Murat, M., Köse, S., & Savaşer, S. (2021). Determination of stress, depression and burnout levels of front-line nurses during
- the COVID-19 pandemic. International journal of mental health nursing, 30(2), 533-543. https://doi.org/10.1111/inm.12818 14. Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. Applied
- Psychological Measurement, 1(3), 385-401. 15. Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the Self-
- Compassion Scale. Clinical Psychology & Psychotherapy. 18, 250-255. 16. Stamm, B. H. (2010). The concise ProOOL manual, 2nd edn. Available from: https://proqol.org/uploads/ProQOLManual.pd
- 17. Waldman, S.V., Diez, J.C.L., Arazi, H.C. et al. Burnout, Perceived Stress, and Depression Among Cardiology Residents in
- Argentina. Acad Psychiatry 33, 296-301 (2009). https://doi.org/10.1176/appi.ap.33.4.296 18. Wiegner, L., Hange, D., Björkelund, C. et al. Prevalence of perceived stress and associations to symptoms of exhaustion, depression and anxiety in a working age population seeking primary care - an observational study. BMC Fam
- Pract 16, 38 (2015). https://doi.org/10.1186/s12875-015-0252-7 19. Wu, F., Ren, Z., Wang, Q., He, M., Xiong, W., Ma, G., Fan, X., Guo, X., Liu, H., & Zhang, X., (2021). The relationship
- between job stress and job burnout: The mediating effects of perceived social support and job satisfaction. Psychology, Health & Medicine, 26(2), 204-211. https://doi.org/10.1080/13548506.2020.1778750 20. Yörük, S., & Güler, D. (2021). The relationship between psychological resilience, burnout, stress, and sociodemographic factors with depression in nurses and midwives during the COVID-19 pandemic: A cross-sectional study in
 - Turkey. Perspectives in psychiatric care, 57(1), 390–398. https://doi.org/10.1111/ppc.12659



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