

At the end of the rope: Burnout 2.0

Inaugural address: Prof. Leon T. de Beer

21 February 2020

What is burnout and what are its consequences?

Burnout is a popular word that is used frequently in general conversation among co-workers and the general population. Most people have encountered a colleague who has stated that they have been so busy that they feel burned out. However, is that burnout or just temporary fatigue? How burnout is described will illicit different answers from different academics. There was also misinformation doing the rounds in 2019, in the form of “fake news”. Specifically, it was reported by many news outlets that the World Health Organisation (WHO, 2019) was listing burnout for the *first time* in the upcoming ICD-11. However, burnout has been listed in the ICD-10 under problems with life management as “vital exhaustion” and what the WHO did was update the definition of burnout and provided additional clarity surrounding the concept:

“Burnout is a **syndrome** conceptualised as **resulting from chronic workplace stress** that has **not** been **successfully managed**”.

The standard, classical, operationalisation of burnout includes three components: 1) Emotional exhaustion, 2) cynicism and 3) reduced professional efficacy (professional inefficacy). Emotional exhaustion, of course, includes feelings of being energetically depleted (inability), cynicism (previously labelled depersonalisation) includes feelings of mental distance and general negativity towards the job (unwillingness), and reduced professional efficacy indicates feelings of not being as effective at one’s job as one was in the past and that not much has been achieved (see Maslach, Jackson, & Leiter, 1996; Schaufeli & Taris, 2005). However, even this operationalisation of burnout is challenged as will be discussed later (De Beer & Bianchi, 2019).

Furthermore, what became clear from the WHO clarifications is that:

1. Burnout is not a medical diagnosis but only an occupational phenomenon.
2. Burnout still has no set diagnostic criteria in the ICD-11.
3. The ICD-11 only comes into effect in 2022.

Research has shown that burnout has consequences for individuals and organisations. For example, a few of these consequences include *inter alia* Irritable bowel syndrome, cardiovascular problems, sleep disturbances, anxiety, turnover intention, reduced organisational commitment, significantly lowered performance, and corporate citizenship behaviour.

How prevalent is burnout in South Africa and what are the primary determinants?

According to estimates by Afriforte (2019), 14% of the working population in South Africa likely suffer burnout. Additionally, 29% of employees are at risk of burnout, so around 1 in 3 people is either burned out or close to burnout. Specifically, the data indicate that the main drivers of burnout in South Africa are in order of importance: Work-related emotional load, person-job fit, role ambiguity and workload. The work-related emotional load is not surprising as the core component of burnout is emotional exhaustion (De Beer & Bianchi, 2019). Thus, even though other factors can also emotionally exhaust individuals, work-related emotional exhaustion is the primary driver. In terms of person-job fit, some might be surprised by this. However, South Africa has a high unemployment rate and individuals may obtain jobs that were not exactly in line with their career vision and invoke this will invoke misfit feelings. Similarly, role ambiguity creates uncertainty and leads to conflict between the employee and their colleagues and supervisors. Finally, workload is also a driver of burnout in South Africa; if employees do not perceive a fair and manageable workload that also has challenging aspects, it will erode energy systematically into a state of exhaustion and cynicism, i.e. burnout.

How is burnout measured and what are criticism is levelled against the concept?

The most popular measure of burnout is undoubtedly the Maslach Burnout Inventory (MBI), specifically the MBI-GS (Maslach, Jackson, & Leiter, 1996). The MBI is used in more than 90% of the studies that include burnout as a construct, but it is now also a commercial tool and is therefore paywalled. However, the MBI and the measurement of burnout is not without controversy. There are at least five main criticisms that can be levelled against MBI-measured burnout in general (Schaufeli et al., 2019). The first is that because the MBI has been used in such a large variety of studies and is so popular burnout is considered the MBI and the MBI as burnout (i.e. a certain circularity exists). Second, there is a lack of validated cut-off scores for the MBI and those that exist are not representative of the populations from which was sampled. Thirdly, the factor structure of MBI-measured burnout has been inconsistent, ranging from a single factor, two factors, three factors, and even a bi-factor model (De Beer & Bianchi,

2019). Fourthly, and following directly from the previous criticism, burnout is said to be a syndrome, also now so operationalised by the WHO. As such, burnout should be modelled as a second-order factor model as there is a theoretical imperative of burnout as a syndrome. Lastly, when working in a specific field one should be cautious of working in a bubble and comfort zone; there is a sort of groupthink that could develop. To this end, it was essential to consider the research of others who actively doubt the burnout construct in the debate. Specifically, Dr Renzo Bianchi and colleagues' research has questioned whether burnout should be considered a differential concept when considering depression. However, recent research has shown that even though there is an overlap between burnout and depression, they are distinct concepts (e.g. Thuynsma & De Beer, 2017; Tóth-Király et al., 2020).

The proposed solution? The Burnout Assessment Tool (BAT-23)

To address many of the criticisms directed towards the status quo of burnout measurement. The Burnout Assessment Tool (BAT) consortium was established after the creation of the Burnout Assessment Tool 23-item version (BAT-23; Schaufeli et al., 2019). The consortium currently consists of at least 20 countries and the list is growing.

In contrast to the MBI, the BAT was based on an inductive and deductive approach with representative samples from those countries, 300 items were also factor analysed to ascertain the best items to include in a burnout measure. Because an inductive approach was also taken in interviewing professionals who work with burned out patients, two additional core components of the burnout syndrome were identified. Thus, BAT-assessed burnout consists of exhaustion (inability), mental distance (unwillingness), cognitive impairment (reduced functional capacity to regulate cognitive processes) and emotional impairment (reduced functional capacity to regulate emotional processes) (Schaufeli et al., 2019). Cognitive impairment symptoms include memory and concentration problems, and emotional impairment symptoms include losing one's temper and outburst that is uncharacteristic of the employee. A significant advantage of the BAT is that it is freely available for use by researchers and organisations. Of course, an essential factor that will determine the BAT's success will be to create and make available norm scores for people, professionals, and organisations to compare their scores against. Therefore, it will be important to leverage technologies to enable free, ethical, data sharing at a central point that can update and compare norms automatically.

What does the data say about the BAT-23 in South Africa?

As mentioned, burnout is a syndrome and should be statistically modelled according to that theoretical foundation. Therefore, confirmatory factor analysis was applied (Brown, 2015) and a second-order model specified in Mplus 8.4 (Muthén & Muthén, 2020) as depicted in Figure 1 below.

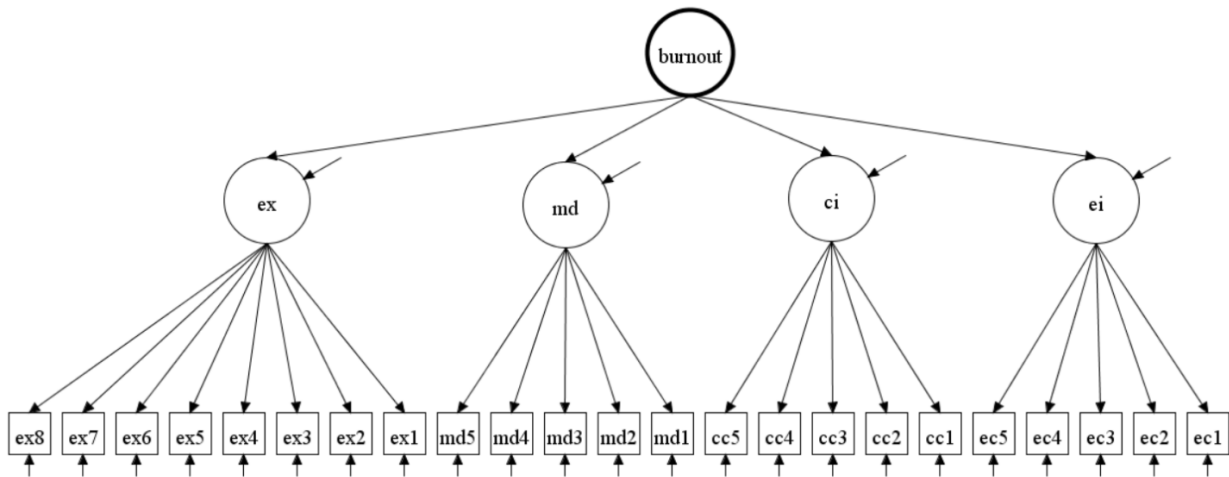


Figure 1. *The statistical model of BAT-assessed burnout as a syndrome.*

The results showed that the model was a good fit to the data in line with the standard consideration for model fit in latent variable modelling, that is a comparative fit index (CFI) of above 0.90, a Tucker-Lewis index also above 0.90, a root mean square error of approximation (RMSEA) and standardised root mean residual (SRMR) of below 0.08 (Van de Schoot, Lugtig, & Hox, 2012). All the items loaded substantially and significantly on their respective factors.

The reliability coefficients, both Cronbach's alpha and composite reliability for the first and second-order factor(s) were highly acceptable, i.e. 0.80 and above. Furthermore, in terms of the equivalence of the BAT regarding gender and ethnicity, the delta changes in fit indice results showed that strong measurement invariance was apparent between gender; indicating that burnout levels can be compared between males and females if required. Similarly, the results showed configural and metric invariance for ethnicity, but only partial strong (scalar) measurement invariance (Rudnev et al., 2018). This situation indicates that the mean levels of burnout can be compared between ethnicities when required, with some minor caution. See Figure 2 below for a summary of the measurement invariance testing.

Gender								
Model	Estimator: MLR	x2	df	CFI	ΔCFA	RMSEA	ΔRMSEA	
1	Configural	939.646	410	0.916	-	0.060	-	
2	Metric 1st	962.361	428	0.916	0.000	0.059	-0.001	
3	Metric 1st and 2nd	966.473	431	0.915	-0.001	0.059	0.000	
4	Scalar 1st	1005.076	446	0.912	-0.003	0.059	0.000	
5	Scalar 1st and 2nd	1023.730	449	0.909	-0.003	0.060	0.001	
Ethnicity								
Model	Estimator: MLR	x2	df	CFI	ΔCFA	RMSEA	ΔRMSEA	
1	Configural	796.601	410	0.910	-	0.062	-	
2	Metric 1st	824.260	428	0.907	0.003	0.061	-0.001	
3	Metric 1st and 2nd	829.085	431	0.907	0.000	0.061	0.000	
4	Scalar 1st	899.422	449	0.895	-0.012	0.064	0.003	
5	Scalar 1st and 2nd	950.558	452	0.884	-0.011	0.067	0.003	
6	Partial - Scalar 1st	839.804	442	0.907	0.000	0.060	0.001	
7	Partial - Scalar 1st and 2nd	872.531	445	0.903	-0.004	0.062	0.002	

Figure 2. Results of the measurement invariance test for gender and ethnicity.

Therefore, the BAT was reliable and valid within the South African context and comparison between groups is also possible. The Employment Equity Act holds that all psychological measurements should be: 1) valid and reliable and 2) not be biased towards any group (Republic of South Africa, 1998). The results of these data clearly show evidence for both requirements.

How does BAT-assessed burnout in South Africa compare with other countries?

Figure 3 below presents the mean levels ("cockpit") with 95% confidence intervals ("wings") for the eight countries. Note that South Africa is the dashed 0.0 line for comparison purposes. As can be seen, the South African sample scored higher on burnout than our European counterparts, but lower than Japan which scores the highest of all the countries on burnout. These results are not surprising, as Japan is well known for its culture of overwork, which has been aptly termed "karoshi" (death from overwork or salaryman sudden-death syndrome) (see Herbig & Palumbo, 1994). All the European countries scored similarly on burnout – given the overlap of their 95% confidence intervals ("wings") indicating no significant difference between them. The exact reason why South Africa scores higher than the European countries can only be speculated about and requires further investigation. However, it could be that the European systems are much more geared towards a focus on employee well-being, work-life balance and legislation that regulates work hours. South Africans have recently been reported to be some of the earliest risers in the world (Staff Writer, 2015).

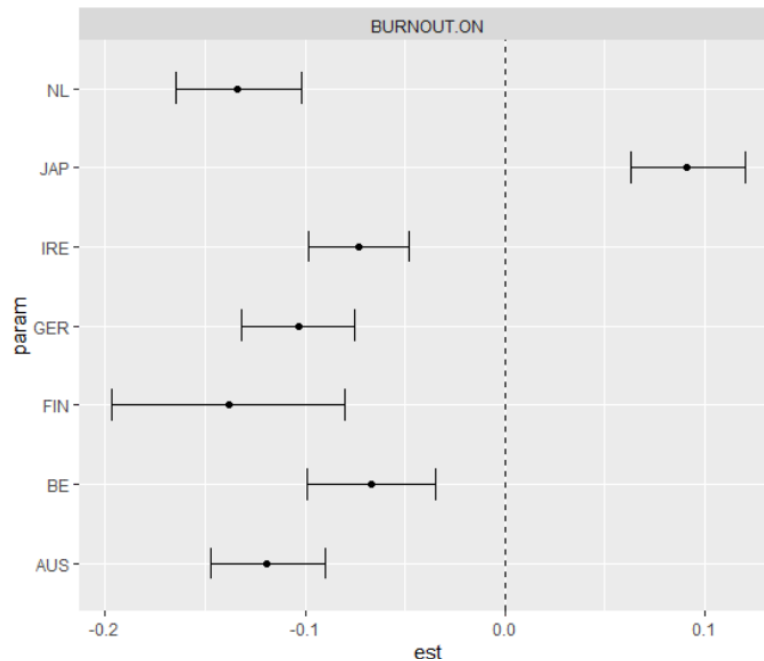


Figure 3. *Burnout scores for the countries with South Africa as the reference group.*

Notes: NL = The Netherlands; JAP = Japan; IRE = Ireland; GER = Germany; FIN = Finland; BE = Belgium; AUS = Austria

However, the first-order factor model can also explain where countries might differ in the four components of BAT-assessed burnout. Figure 4 below provides the mean levels with 95% confidence intervals for all the BAT components for each country, with South African once again being the reference 0.0 dashed line.

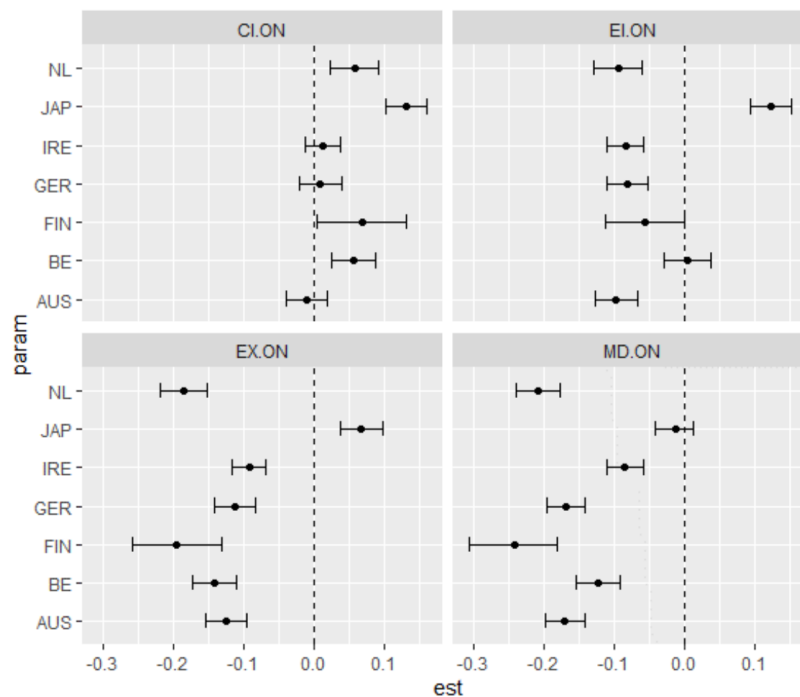


Figure 4. *Mean levels for the components with South Africa as the reference group.*

Notes: EX = Exhaustion; MD = Mental distance; CI = Cognitive impairment; EI = Emotional impairment.

Figure 4 shows that South African and Japan score higher on exhaustion compared to the European countries. However, South Africa and Japan scored the same on mental distance but again higher than all the European countries. Interestingly, South African scored the same as Ireland, Germany, Finland and Austria on cognitive impairment. As for emotional impairment, Japan again scored the highest, but Belgium and Finland score similarly to South Africa.

What are the future trends in burnout research?

Burnout research in locally and globally will continue to focus on the following topics:

1. Burnout risk in organisations and the impact on business outcomes.
2. Burnout intervention research on both individuals and organisations.
3. Continued research with the MBI as “gold standard” of burnout measurement.
4. An exponential increase in the use of the BAT-23 as a burnout scale.
5. Continued research on the overlap of burnout with depression.
6. Innovative technological implementations to identify burnout, such as the creation of a global norm database.

What to do about burnout?

Admittedly, burnout is not a feel-good topic, but it remains a serious public health concern. Therefore, it is vital that organisations screen for burnout at least once a year and for employees to take personal responsibility in managing their well-being. If employees do not look after themselves, metaphorically speaking, the same will happen to them as with a lit match (see Figure 5) below. At first, they will be able to handle the strain, but eventually, if the situation is not rectified, they will catch fire and their energy will deplete, resulting in burnout.



Figure 5. *The life cycle of a match used as a metaphor (VectorStock.com).*

In keeping with fire metaphors, the following simple intervention plan could be used to intervene in the early stages of the burnout syndrome's health impairment process: Stop, drop and roll. When you realise that you are being affected by the strain of your job and are not finding sufficient time to recover, it is essential to stop the pattern of what you are doing – similarly to when one is on fire, it is not the most effective strategy keep running around. Instead, one should “drop”, using resources available to you such as employee assistance programmes (EAPs), health practitioners and your direct line manager to consider strategies for alleviating the strain you are experiencing and making the situation more manageable. Finally, it is important to “roll”; execute the strategy decided upon in the “drop” phase successfully and guard against not going back to the initial patterns that might increase strain again.



Figure 6. Illustrating the stop, drop and roll intervention suggestion (ClipArtStation.com).

“When you get to the end of your rope, tie a knot and hold on!”

- **Franklin D. Roosevelt**

Note: The online version of the presentation accompanying this inaugural lecture can be found at the following hyperlink: <https://prezi.com/view/C0avbr8eVIBF4BWxg5Al/>

References

- Afriforte (2019). *Burnout in South Africa*. Unpublished internal report.
- Brown, T. A. (2015). *Confirmatory factor analysis for applied research* (2nd ed.). New York, NY: Guilford Press.
- De Beer, L. T., & Bianchi, R. (2019). Confirmatory factor analysis of the Maslach Burnout Inventory: A Bayesian structural equation modeling approach. *European Journal of Psychological Assessment*, 35(2), 217-224.
- Herbig, P. A., & Palumbo, F. A. (1994). Karoshi: Salaryman sudden death syndrome. *Journal of Managerial Psychology*, 9(7), 11-16.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory*. (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Muthén, L. K. and Muthén, B. O. (2020). *Mplus user's guide* (8th ed.). Muthén & Muthén. https://www.statmodel.com/download/usersguide/MplusUserGuideVer_8.pdf
- Republic of South Africa. (1998). Employment Equity Act, 1998, Government Gazette, 400 (19740), Cape Town, 19 October 1998, Retrieved from https://www.gov.za/sites/default/files/gcis_document/201409/a55-980.pdf
- Rudnev, M., Lytkina, E., Davidov, E., Schmidt, P., & Zick, A. (2018). Testing Measurement Invariance for a Second-Order Factor. A Cross-National Test of the Alienation Scale. *Methods, Data, Analyses*, 12(1), 47-76. doi: 10.12758/mda.2017.11
- Schaufeli, W.B., De Witte, H. & Desart, S. (2019). *Manual Burnout Assessment Tool (BAT) – Version 2.0*. KU Leuven, Belgium: Unpublished internal report.
- Schaufeli, W. B., & Taris, T. W. (2005). The conceptualization and measurement of burnout: Common ground and worlds apart. *Work & Stress*, 19(3), 256-262.
- Staff Writer (2015). South Africans are the earliest risers in the world. Retrieved from <https://businesstech.co.za/news/lifestyle/86268/south-africans-are-the-earliest-risers-in-the-world/>
- Thuynsma, C., & De Beer, L.T. (2017). Burnout, depressive symptoms, job demands and satisfaction with life: Investigating discriminant validity and explained variance. *South African Journal of Psychology*, 47(1), 46-59.
- Tóth-Király, I., Morin, A. J., & Salmela-Aro, K. (2020). Reciprocal Associations between Burnout and Depression: An Eight-Year Longitudinal Study. *Applied Psychology*.
- Van de Schoot, R., Lugtig, P., & Hox, J. (2012). A checklist for testing measurement invariance. *European Journal of Developmental Psychology*, 9(4), 486-492.
- WHO [World Health Organization] (2019). Burnout an “occupational phenomenon”: International Classification of Diseases. Retrieved from https://www.who.int/mental_health/evidence/burn-out/en/