Burnout of academic staff in South African higher education institutions

S. Rothmann
WorkWell Research Unit
University of the North-West
South Africa
e-mail: Ian.Rothmann@nwu.ac.za

N. Barkhuizen
University of the North-West
South Africa

Abstract
The objectives of this study are to assess the psychometric properties of an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) for academic staff in South African higher education institutions and to investigate differences between the burnout levels of different demographic groups. A survey design was used, with stratified random samples (N = 595) taken of academics in six South African universities. Exploratory factor analysis with target rotations resulted in a three-factor model of burnout, consisting of Exhaustion, Mental Distance and Professional Efficacy. The scales showed acceptable internal consistencies and construct equivalence for two language groups. Practically significant differences were found in the burnout levels of academics with regard to their age.

INTRODUCTION
Higher education institutions world-wide are developing a disturbing imbalance with their environments (Clark 2000). This imbalance arise because higher education institutions face an overload of demands and are equipped with an under-supply of response capabilities, especially concerning finances. The South African higher education system has been subjected to enormous changes during the last two decades (Boughey 2004). Some of the factors that contributed towards the problems in higher education in South Africa, include the profound inequities and distortions of the system, incoherent and poor articulation between various types of higher education institutions, under-prepared students from poorly resourced socio-economic and
academic contexts, unequal distribution of resources and subsidy amongst higher education institutions, declining state subsidy, and increased competition from international and private higher education institutions (Hay, Fourie and Hay 2001). Therefore, it seems that higher education institutions no longer provide the low-stress working environments that they once did. In fact, academics throughout the world deal with a substantial amount of ongoing occupational stress (Kinman 2001). The persistent demands experienced by academics in higher education institutions could impact on the quality of worklife (Johnsrud 2002), and lead to adverse consequences, including burnout. Most of what is currently known about academic stress, however, comes from studies carried out in the United States of America, United Kingdom, New Zealand and Australia (see Blix, Cruise, Mitchell and Blix 1994; Doyle and Hind 1998; Kinman and Jones 2003).

Burnout affects all professions, but tends to be more pervasive in human service occupations such as education. Despite this evident recognition, only few empirical studies have been articulated on burnout among academics in general (i.e. Blix et al. 1994; Byrne 1991; Doyle and Hind 1998; Jackson, Barnett, Stajich and Murphy 1993; Lackritz 2004; Pretorius 1994; Singh, Mishra and Kim 1998; Van Emmerik 2002). Nevertheless, these studies provided overwhelming evidence that faculty burnout is escalating and consequently academic careers are becoming less attractive.

Since its ‘discovery’ in the early 1970s, the term burnout has been used to denote a state of emotional, cognitive and physical exhaustion (Shirom 2003). Applied within the academic context, faculty burnout is conceived as an emotional phenomenon associated with high achievement in the academic role (Talbot 2000). Many educators enter the field eager to teach, and create, only to experience what so many other professional educators have encountered – the fire to teach dwindles to a mere spark. Presumably, high expectations lead people to work too hard and do too much, thus leading to burnout when the high effort does not yield the expected results (Maslach, Schaufeli and Leiter 2001).

From the onset, it has been claimed that burnout not only is detrimental for the individual but likewise for the organisation. Accordingly, the high academic consequences of burnout are accompanied by declines in mental and physical health (Barkhuizen, Rothmann and Tytherleigh 2004), low morale (Johnson 1993), drug and alcohol abuse (Watts et al. 1991) weakening of interpersonal relationships (Brown, Daniels and Sanchez 1996), deterioration in teaching and research performance (Dick 1992; Singh et al. 1998), increased absenteeism and ultimately considerations of leaving the profession (Blix et al. 1994; Seiler and Pearson 1985). According to Maslach and Leiter (1995), the ‘burned out’ educator might have a negative effect on students’ well-being and performance. Ironically, it is generally believed that students, staff and administrators are likely to contribute towards the academic developing burnout (Blix et al. 1994).

Given the significance of burnout for the individual, it is necessary to have a standardised instrument to measure burnout. Undoubtedly, the most popular instrument is the Maslach Burnout Inventory (MBI), of which three versions exist: the
Burnout of academic staff in South African higher education institutions

Human Services Survey (HSS), the Educators Survey (ES) and the General Survey (GS) (Maslach and Jackson 1981; Maslach, Jackson and Leiter 1996). The model underlying the MBI holds that burnout is a multidimensional syndrome that consists of the following conceptually distinct, but empirically related concepts: (emotional) exhaustion, cynicism (or depersonalisation), and professional efficacy (or personal accomplishment). In its strongest form, the model maintains that the entire component parts of the syndrome are necessary and relevant for defining burnout (Leiter 1988).

In sum, it is clear that faculty burnout is a phenomenon of growing proportions and therefore warrants further understanding in the hope of developing prevention strategies to keep academics content with their chosen endeavours and profession.

THE MEASUREMENT OF BURNOUT

Soon after its introduction in the early 1980s (Maslach and Jackson 1981), the Maslach Burnout Inventory (MBI) became the almost universally accepted ‘gold standard’ for assessing burnout. As a result, the two original versions of the MBI, namely the MBI-HSS and MBI-ES, have both driven and conditioned most of the theoretical and empirical work done in the field of burnout (Schaufeli 2003; Yadama and Drake 1995). Furthermore, this popular psychological phenomenon is defined by the test authors as ‘… a syndrome of emotional exhaustion, depersonalisation and reduced personal accomplishment that can occur among individuals who do people work of some kind’ (Maslach and Jackson 1986, 1). Essentially, burnout as measured with the original MBI, is reflected by a combination of high scores on emotional exhaustion (feelings of being over-extended, and drained from one’s resources), depersonalisation (negative, cynical, detached and impersonal attitudes particularly towards other people) and low scores on personal accomplishment (growing devaluation of self-competence and overall achievement in the job).

Unfortunately, earlier studies with the MBI encountered problems with the reproducibility of its factor structure (Fimian and Blanton 1987), and the limited internal consistency of the depersonalisation sub-scale (Schaufeli, Enzmann and Girault 1993). Moreover, several authors have challenged the prevailing view that the MBI should be used exclusively in those occupational contexts for which it has been designed for – human service and education (Maslach and Schaufeli 1993). Accordingly, the three original burnout dimensions were redefined, and an alternative version of the MBI, namely the MBI-General Survey (MBI-GS), was developed which can also be used outside the human services (Schaufeli, Leiter, Maslach and Jackson 1996). This means that exhaustion, as measured by the MBI-GS encompasses severe fatigue irrespective of its cause; cynicism reflects an indifferent or distant attitude towards work instead of other people; and lack of professional efficacy incorporates both social and non-social aspects of occupational accomplishment.

Initial studies on the more recent version of the MBI yielded promising results. More specifically, confirmatory factor analysis showed that a three-factor model was clearly superior to alternative one-factor and two-factor models (Schutte, Toppinen,
Kalimo and Schaufeli 2000; Leiter and Schaufeli 1996). Also, applicable within the South African context, internal consistencies were satisfactory and a three-factor structure was confirmed (Storm and Rothmann 2003).

The MBI in particular, has received a great deal of attention in literature with respect to its factorial stability in different countries and languages. A considerable amount of evidence exist to support the three-dimensional framework of the instrument, in English, across a wide range of occupations (i.e. Green, Walkey and Taylor 1991; Kalliath, O’Driscoll, Gillespie and Bluedorn 2000). This comes as no surprise, since burnout has drawn the attention of English-speaking countries from the onset of awareness of the phenomenon (Maslach et al. 2001). Not only is it important to establish reliable and valid methods of measurement with regard to perceived burnout, it is also important to take into account the cultural diversity in a multicultural setting such as South Africa.

An assessment of this type should be concerned with the issue of equivalency (Hwang, Yan and Scherer 1996). According to Ben-Porath, Almagor, Hoffman-Chemi and Tellegen (1995), assurance of measurement equivalency across different cultures is important for determining whether measures of a construct in one culture also exist in other cultures, to determine the degree of variability of the measures across several cultures, and to determine whether the measures are universal or culture-specific. Assessing measurement equivalence across countries and languages provides information about the factorial invariance of an instrument and therefore allows the researcher a degree of confidence in using the instrument in two or more cultural settings (Leung and Van de Vijver 1996). The cross-cultural utility of the MBI has also been confirmed in South African studies with regard to differences between various race groups (Storm and Rothmann 2003) and language groups (Jackson and Rothmann 2005) respectively.

In recent years, the MBI-GS has also been extended for use in so-called helper professions. More specifically Barkhuizen et al. (2004) found the MBI-GS a suitable and reliable burnout measure in a sample of university academic staff. However, when the MBI-GS is used on members of helping professions such as academics, the specific interpersonal characteristic of burnout (depersonalisation) is lost (Schaufeli 2003). With academia traditionally being perceived as a very people-intensive occupation (i.e. interactions with students, staff, administrators), one obviously should consider whether it is possible to get a clear picture of academic burnout when measured with the MBI-GS, but lacking the interpersonal dimension of depersonalisation.

This problem may be overcome by viewing depersonalisation as a special case of mental distance. That is, to the same extent depersonalised human services professionals exhibit a psychological distance towards the recipients of their services, cynical non-human services employees show a similar psychological distance regarding their work environment. In other words, the targets of the mental distance differ: in the case of human services professions it is the recipients, whereas in employees who work with things or with information, it is the job itself (Salanova, Llorens, Garcia-Renedo, Burriel, Bresó and Schaufeli (In press)). Thus, in order to capture the individual's
attitude towards both his/her students/colleagues (depersonalisation) and work (cynicism), Schaufeli (2003) suggests that the depersonalisation scale of the MBI-HSS/ES should be included in addition to the MBI-GS. However, a fundamental question arising from this development is whether cynicism and depersonalisation are actually distinct concepts of burnout or rather are both dimensions of mental distance.

In support of this argument, two contradictory studies exist regarding the distinctiveness of MBI-depersonalisation and MBI-cynicism. A recent study by Salanova et al. (in press), showed that one could discriminate empirically between cynicism and depersonalisation. Therefore one should not, for example, assume that depersonalisation is measured when the MBI-GS is used for the assessment of academic burnout. Results obtained from a South African study however, found quite the opposite (Jackson and Rothmann 2005). According to these authors, burnout is not characterised by two separate cynical and depersonalisation dimensions. Instead, these two dimensions merged into one mental distance construct.

**BURNOUT IN DIFFERENT DEMOGRAPHIC GROUPS**

An emerging trend over the past decade has been the growing literature examining the interaction of key individual (i.e. gender, age, years of experience) and environmental factors (i.e. grade taught, type of students) in developing burnout. Although there was considerable speculation about gender differences regarding burnout, the empirical data do not support that conclusion (Maslach and Jackson 1985). Part of the reason for the discrepancy between the perception and the reality is that the variable of gender is often confounded with occupation and/or status. However, whereas traditional arguments yielded that burnout is more of a female experience, more recent research acknowledged that men are also susceptible to this phenomenon (Cooper, Dewe and O’Driscoll 2001).

Applied within the academic context, female academics often report higher levels of exhaustion than their male colleagues, whereas the latter are more depersonalised (Byrne 1991; Jackson et al. 1993; Lackritz 2004). In another study, Doyle and Hind (1998) also confirmed the higher incidence of depersonalisation among male academics, but failed to report any significant relationship with exhaustion. Furthermore, these authors together with Lackritz (2004), found no significant relationships regarding professional efficacy, whereas Byrne (1991) reported that female academics featured much lower on this burnout dimension than male academics. The argument for greater burnout among male academics, is therefore as compelling as it is for female academics.

Burnout is reported consistently by younger members of staff (Cordes and Dougherty 1993), although more recently Schaufeli and Van Dierendonck (2000), found this phenomenon to be prevalent among older age groups as well. Younger academics in particular tend to experience higher levels of exhaustion than their older colleagues (Byrne 1991; Jackson et al. 1993; Lackritz 2004). Furthermore, age
is also linked with work experience, so burnout appears to be more of a risk earlier in one’s career. Blix et al. (1994) for example reported higher exhaustion and cynicism scores for less experienced academics, than for those with longevity of service. Moreover, both these dimensions are often associated with an intention to quit (Lee and Ashforth 1990). Indeed, much has lately been said about academics as an ageing occupational group. As Maslach (1982) notes, workers who score lower on burnout may be older and wiser or a survivor population – those who were seriously burned out have already left the profession.

Academic qualification has also been found to be a significant contributor to burnout (Langemo 1990). Although some researchers have associated burnout with higher levels of education (Maslach et al. 1996) others revealed that workers with a doctoral degree are less likely to report burnout than those with a master’s degree (Smith-Stevenson and Saul 1994). Notwithstanding, this is still quite remarkable since most stress-related problems seem more prevalent among workers with low status and poor education (Fletcher 1988).

Some research showed that rank, as a potential status resource, is an active variable in predicting academic burnout (Byrne 1991). Both studies found significant higher exhaustion scores for junior faculty than their senior colleagues. According to Hind, Dornbusch and Scott (1974), faculty in lower ranks are more often assigned heavily loaded teaching tasks and consequently spend less time doing research. Higher levels of burnout have previously been associated with faculty mainly involved in teaching (Dick 1992; Jackson et al. 1993). However, being employed as a research assistant on an endless round of short-term contracts could also lead to strain (Doyle and Hind 1998; Singh et al. 1998). More specifically, Singh et al. (1998) recently introduced the issue of research-related burnout. In this study, assistant professors who were burned out doing research reported lower ratings of job satisfaction, knowing that they might not become tenured. For tenured faculty, a perceived lack of rewards for research had a large effect on their burnout levels. Overall, non-tenured faculty seem to be more burned out than those tenured (Jackson et al. 1993).

**AIMS AND HYPOTHESES OF THE STUDY**

The objectives of this study were to assess the construct equivalence and internal consistency of an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) for academics among different language groups in South Africa, and to investigate the differences between the burnout levels of different demographic groups in South Africa.

The following hypotheses were set:

H1: Burnout (as measured by the MBI-GS and depersonalisation scale of the MBI-ES) is a three-dimensional construct. Acceptable internal consistencies and construct equivalence exist for both Afrikaans- and English speaking academic staff members in South African Universities.
H2: Younger academics experience higher levels of burnout than older academics.

H3: Males experience higher levels of mental distance than females, while females experience higher levels of exhaustion than males.

H4: Junior academics experience higher levels of burnout than senior academics.

H5: Academics with lower level of qualifications experience higher levels of burnout than academics with post-graduate qualifications.

**METHOD**

**Research design**

A cross-sectional survey design was used to achieve the objectives of this research.

**Participants**

The participants were academic staff members from six South African universities. Two thousand questionnaires were sent to randomly selected participants. A total of 633 questionnaires were returned, with 595 found usable for data analysis. This represents a 28.33 per cent response rate. Demographic breakdowns are given in Table 1.

**Table 1: Characteristics of the participants**

<table>
<thead>
<tr>
<th>Item</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>North-West University</td>
<td>268</td>
<td>46.7</td>
</tr>
<tr>
<td></td>
<td>University of Port Elizabeth</td>
<td>77</td>
<td>12.9</td>
</tr>
<tr>
<td></td>
<td>University of the Orange Free State</td>
<td>86</td>
<td>14.5</td>
</tr>
<tr>
<td></td>
<td>Rhodes University</td>
<td>38</td>
<td>6.4</td>
</tr>
<tr>
<td></td>
<td>University of the Witwatersrand</td>
<td>45</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>University of Cape Town</td>
<td>71</td>
<td>11.9</td>
</tr>
<tr>
<td>Job title</td>
<td>Junior lecturer</td>
<td>45</td>
<td>7.6</td>
</tr>
<tr>
<td></td>
<td>Lecturer</td>
<td>176</td>
<td>29.6</td>
</tr>
<tr>
<td></td>
<td>Senior lecturer</td>
<td>153</td>
<td>25.7</td>
</tr>
<tr>
<td></td>
<td>Associate professor</td>
<td>75</td>
<td>12.6</td>
</tr>
<tr>
<td></td>
<td>Full professor</td>
<td>117</td>
<td>19.7</td>
</tr>
<tr>
<td>Qualification</td>
<td>Grade 12 + 3 year Degree</td>
<td>17</td>
<td>2.9</td>
</tr>
<tr>
<td></td>
<td>Grade 12 + 4 year Degree or Honors</td>
<td>67</td>
<td>11.3</td>
</tr>
<tr>
<td></td>
<td>Grade 12 + 5 to 7 year Degree (e.g. medicine)</td>
<td>8</td>
<td>1.3</td>
</tr>
<tr>
<td></td>
<td>Grade 12 + Master’s Degree</td>
<td>200</td>
<td>33.6</td>
</tr>
<tr>
<td></td>
<td>Grade 12 + Doctoral Degree</td>
<td>287</td>
<td>48.2</td>
</tr>
<tr>
<td>Focus</td>
<td>Research</td>
<td>47</td>
<td>8.1</td>
</tr>
<tr>
<td></td>
<td>Lecturing</td>
<td>145</td>
<td>25.0</td>
</tr>
<tr>
<td></td>
<td>Research and lecturing</td>
<td>388</td>
<td>66.9</td>
</tr>
</tbody>
</table>


According to Table 1, most participants were from North-West University (46.7%), with the average rank of lecturer (29.6%), in possession of a doctoral degree (48.2%) and focusing on both research and lecturing (66.9%). Females (50.1%) constituted one more participant than males, were married (67.6%) and between the ages of 40–49 years (30.6%). Most of the respondents were Afrikaans speaking (63.9%), and generally career stable with 86.2% currently tenured at their institutions.

### Procedure

The South Africa Universities Vice-Chancellors Association (SAUVCA) was asked for permission to conduct the study. The questionnaires were mailed to human resource officers at participating universities, from where they were distributed. A cover letter explained the purpose of the study, stated that participation was voluntary, and guaranteed confidentiality. Respondents were asked to return the completed questionnaires in a sealed envelope, either to the person who had distributed them or directly to the research team.

### Measuring instrument

The Maslach Burnout Inventory – General Survey (MBI-GS) was used to measure the Exhaustion (5 items), Cynicism (5 items) and Professional Efficacy (6 items) dimensions of burnout. The Depersonalisation (5 items) dimension of the Maslach Burnout Inventory Educator Survey (MBI-ES) was also included in the questionnaire. On the scale the word ‘recipients’ (MBI-GS), found on the original scale was replaced by ‘student’ (MBI-ES). Responses, to 21 items, are made on a six-point scale varying from 0 (never occurs) to 6 (occurs everyday). High scores on Exhaustion and Cynicism/Depersonalisation, and low scores on Professional Efficacy are indicative of burnout. Internal consistencies (Cronbach coefficients alphas) for the MBI-GS reported by Maslach et al. (1996) varied from 0.87 to 0.89 for Exhaustion, 0.73...
to 0,84 for Cynicism and 0,76 for Professional Efficacy. An internal consistency, 0,79 was reported for Depersonalisation as measured by the MBI-ES (Maslach and Jackson 1986). Applied within the South African context, recent studies using the MBI-GS obtained Cronbach alphas of 0,88 to 0,89 (Exhaustion), 0,78 to 0,76 (Cynicism) and 0,79 to 0,85 (Professional Efficacy) in a sample of police officers (Storm and Rothmann 2003).

A biographical questionnaire was used to gather information about the demographic characteristics of the participants. Information that was gathered included the following: city and university, gender, language, age, educational qualifications, job category, job title, main educational focus, years in current institution, years in current job, and basis of employment.

**Statistical analysis**

The statistical analysis was carried out with the SPSS Program (SPSS 2003). The reliability and validity of the MBI were determined by means of Cronbach alpha coefficients, as well as exploratory factor analysis. Descriptive statistics (i.e. means, standard deviations, skewness and kurtosis) were used to analyze the data.

Construct equivalence of the MBI-GS was also performed. A principal components analysis was conducted to determine the number of factors of the MBI-GS in the total sample. Subsequently, a direct oblimin rotation was used to determine the solution for each language group. Factors obtained in each group were compared (after target rotation). The agreement was evaluated by a factor congruence coefficient, Tucker’s phi (Van de Vijver and Leung 1997). Values above 0,90 are taken to point essential agreement between cultural groups, while values above 0,95 point to very good agreement.

Multivariate analysis of variance (MANOVA) was used to determine the significance of differences between the burnout of demographic groups. MANOVA tests whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance (Tabachnick and Fidell 2001). When an effect was significant in MANOVA, one-way analysis of variance (ANOVA) was used to discover which dependent variables had been affected. Tukey tests were done to indicate which groups differed significantly when ANOVAs were done.

**RESULTS**

Because of the composition of the sample, it was decided to conduct the analysis in this study only on Afrikaans and English language groups and not on other African languages. Although the best strategy would have been to define cultural groups in terms of African languages as well, the sample sizes of these language groups were not large enough to justify the statistical techniques which were employed.

Firstly, a simple principal components analysis was conducted on the 21 items of the adapted MBI-GS version on the total sample of academic staff members. Analysis of the eigenvalues (larger than 1) and scree plot indicated that four factors could be
extracted. However, because previous studies confirmed a three-factor solution and the obtained pattern matrices for a four-factor solution did not make sense, it was decided to specify three factors. One item however was complex and problematic. Not surprisingly, Item 13 – ‘I just want to do my job and not be bothered’ loaded on the wrong factor. After deletion of this item, a principal component analysis with a direct oblimin rotation was carried out per language group. The pattern matrices for the Afrikaans and English speaking participants are reported in Table 2.

Table 2: Pattern matrix of the 20-item MBI-GS for Afrikaans and English groups

<table>
<thead>
<tr>
<th>Item</th>
<th>Afrikaans</th>
<th></th>
<th></th>
<th>English</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
<td>Factor 2</td>
<td>Factor 3</td>
<td>Factor 1</td>
<td>Factor 2</td>
<td>Factor 3</td>
</tr>
<tr>
<td>MBI1</td>
<td>0.75</td>
<td>0.02</td>
<td>0.11</td>
<td>0.08</td>
<td>0.03</td>
<td>-0.79</td>
</tr>
<tr>
<td>MBI2</td>
<td>0.86</td>
<td>0.09</td>
<td>-0.05</td>
<td>0.03</td>
<td>0.14</td>
<td>-0.80</td>
</tr>
<tr>
<td>MBI3</td>
<td>0.74</td>
<td>-0.19</td>
<td>0.02</td>
<td>-0.13</td>
<td>-0.12</td>
<td>-0.88</td>
</tr>
<tr>
<td>MBI4</td>
<td>0.69</td>
<td>-0.20</td>
<td>-0.06</td>
<td>-0.07</td>
<td>-0.01</td>
<td>-0.77</td>
</tr>
<tr>
<td>MBI5</td>
<td>-0.19</td>
<td>0.62</td>
<td>0.11</td>
<td>-0.15</td>
<td>0.49</td>
<td>0.01</td>
</tr>
<tr>
<td>MBI6</td>
<td>0.74</td>
<td>0.01</td>
<td>0.22</td>
<td>0.25</td>
<td>0.08</td>
<td>-0.76</td>
</tr>
<tr>
<td>MBI7</td>
<td>-0.01</td>
<td>0.69</td>
<td>-0.16</td>
<td>-0.13</td>
<td>0.69</td>
<td>-0.05</td>
</tr>
<tr>
<td>MBI8</td>
<td>0.29</td>
<td>0.00</td>
<td>0.56</td>
<td>0.66</td>
<td>-0.11</td>
<td>-0.05</td>
</tr>
<tr>
<td>MBI9</td>
<td>0.41</td>
<td>-0.08</td>
<td>0.43</td>
<td>0.46</td>
<td>-0.21</td>
<td>-0.33</td>
</tr>
<tr>
<td>MBI10</td>
<td>-0.03</td>
<td>0.79</td>
<td>0.14</td>
<td>-0.01</td>
<td>0.74</td>
<td>-0.16</td>
</tr>
<tr>
<td>MBI11</td>
<td>0.09</td>
<td>0.63</td>
<td>-0.16</td>
<td>0.12</td>
<td>0.81</td>
<td>0.03</td>
</tr>
<tr>
<td>MBI12</td>
<td>0.08</td>
<td>0.74</td>
<td>-0.06</td>
<td>0.01</td>
<td>0.85</td>
<td>-0.02</td>
</tr>
<tr>
<td>MBI14</td>
<td>0.14</td>
<td>-0.16</td>
<td>0.55</td>
<td>0.43</td>
<td>-0.14</td>
<td>-0.24</td>
</tr>
<tr>
<td>MBI15</td>
<td>0.03</td>
<td>-0.33</td>
<td>0.55</td>
<td>0.36</td>
<td>-0.37</td>
<td>-0.17</td>
</tr>
<tr>
<td>MBI16</td>
<td>-0.11</td>
<td>0.67</td>
<td>-0.04</td>
<td>0.11</td>
<td>0.82</td>
<td>0.10</td>
</tr>
<tr>
<td>MBI17</td>
<td>-0.01</td>
<td>-0.05</td>
<td>0.62</td>
<td>0.60</td>
<td>0.03</td>
<td>-0.11</td>
</tr>
<tr>
<td>MBI18</td>
<td>0.10</td>
<td>0.12</td>
<td>0.54</td>
<td>0.83</td>
<td>0.13</td>
<td>0.13</td>
</tr>
<tr>
<td>MBI19</td>
<td>-0.13</td>
<td>-0.02</td>
<td>0.77</td>
<td>0.86</td>
<td>0.11</td>
<td>0.06</td>
</tr>
<tr>
<td>MBI20</td>
<td>0.29</td>
<td>0.12</td>
<td>0.48</td>
<td>0.41</td>
<td>-0.06</td>
<td>0.01</td>
</tr>
<tr>
<td>MBI21</td>
<td>-0.04</td>
<td>-0.07</td>
<td>0.53</td>
<td>0.58</td>
<td>-0.12</td>
<td>-0.07</td>
</tr>
</tbody>
</table>

The three factors were labelled as follows: a) Factor 1: Exhaustion, b) Factor 2: Professional Efficacy and c) Factor 3: Mental Distance (Depersonalisation/
Cynicism). The pattern matrices of the three-factor solutions for Afrikaans and English participants were then used as input for an exploratory factor analysis with target rotations. Consequently, the following Tucker’s phi coefficients were obtained: a) Exhaustion = 0.94; b) Professional Efficacy = 0.97, and c) Mental Distance = 0.94. These coefficients compared favourably with the guideline of 0.90 and can therefore be regarded as acceptable. Overall, these results provided support for hypothesis 1 because cynicism and depersonalisation merged into one factor namely, mental distance. Furthermore, all three factors showed construct equivalence for the two language groups.

The descriptive statistics and alpha coefficients of the burnout dimensions are given in Table 3.

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exhaustion</td>
<td>14.27</td>
<td>7.16</td>
<td>0.06</td>
<td>-0.84</td>
<td>0.87</td>
</tr>
<tr>
<td>Mental Distance</td>
<td>14.81</td>
<td>9.81</td>
<td>0.60</td>
<td>-0.18</td>
<td>0.82</td>
</tr>
<tr>
<td>Professional Efficacy</td>
<td>28.31</td>
<td>5.32</td>
<td>-0.80</td>
<td>0.59</td>
<td>0.81</td>
</tr>
</tbody>
</table>

From the results in Table 3, it is evident that the scores on the three scales are normally distributed. Compared to the guideline of $\alpha > 0.70$ (Nunnally and Bernstein 1994), the Cronbach alpha coefficients of the sub-scales are considered to be acceptable. Overall, the internal consistency levels would seem to be acceptable. The results provide support for hypothesis 1, indicating that the measuring instrument shows high internal consistency.

Next, MANOVA and ANOVA analyses were done to assess the relationship between burnout and demographic variables, including age, gender, level of education, and job title. These demographic variables were first analysed for statistical significance using Wilks’ Lambda statistics. The results of these comparisons are reported in Table 4.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Value</th>
<th>df</th>
<th>Den DF</th>
<th>F</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age category</td>
<td>0.96</td>
<td>12</td>
<td>1545,40</td>
<td>2.12*</td>
<td>0.01</td>
</tr>
<tr>
<td>Gender</td>
<td>0.97</td>
<td>3</td>
<td>591,00</td>
<td>4.73*</td>
<td>0.02</td>
</tr>
<tr>
<td>Qualification</td>
<td>0.96</td>
<td>15</td>
<td>1615,30</td>
<td>1.66</td>
<td>-</td>
</tr>
<tr>
<td>Academic rank</td>
<td>0.96</td>
<td>12</td>
<td>1479,3</td>
<td>1.75</td>
<td>-</td>
</tr>
</tbody>
</table>

$\alpha < 0.01$
In an analysis of Wilks’ Lambda values, statistically significant differences were found for age category. No support was found for Hypothesis 3, 4 and 5 namely that statistically significant differences exist between burnout of academics based on gender, rank, and qualifications. Exhaustion and Professional Efficacy, showed statistically significant differences \( (p < .01) \) in terms of the different age categories. Academics between the age of 60 and 69 years obtained a practically significant lower score (medium effect) on exhaustion than academics between the ages of 20–29 years, 30–39 years and 40–49 years. Academics between the age of 60 and 69 years also scored significantly higher on professional efficacy (practically significant, medium effect) than academics between the ages of 20–29 years. No practically significant differences were found regarding the Mental Distance of academics of different ages. The above-mentioned results support Hypothesis 3.

DISCUSSION

The objectives of this study were to assess the psychometric properties of an adapted version of the Maslach Burnout Inventory-General Survey (MBI-GS) for academic staff in higher education institutions in South Africa, and to investigate the differences in burnout between the different demographic groups. Exploratory factor analysis with target rotations resulted in a three-factor model of burnout, consisting of Exhaustion, Mental Distance and Professional Efficacy. The scales showed acceptable internal consistencies and construct equivalence for two language groups. Practically significant differences in the burnout levels of academics were found with regard to their age.

Prior to testing the construct validity and internal consistency of the adapted version of the MBI-GS, simple factor analysis was conducted on the total 21-item questionnaire. Initially, four factors could be extracted, but based on the consistency of a three-factor structure as evidenced across various samples, groups and countries (Enzmann, Schaufeli and Girault 1994; Leiter and Schaufeli 1996; Schaufeli and Enzmann 1998), three factors were specified for principal component analysis. Results revealed a three-factor solution with one problematic item (Cynicism, Item 13), loading on the ‘wrong factor’. After removal of item 13, simple factor analysis yielded a three-factor solution. The three factors were labeled as Exhaustion, Mental distance and Professional Efficacy respectively. After being used as input in exploratory factor analysis, these factors indicated that the adapted version of the MBI-GS is equivalent for Afrikaans and English language groups, and therefore the mean score of these groups can be compared to other analysis. Furthermore, reliability analysis confirmed sufficient internal consistency with the three subscales exceeding the critical Cronbach alpha value of .70.

In contrast to Salanova et al. (in press), these results supported the findings of Jackson and Rothmann (2005), confirming that burnout is not characterized by the two separate cynicism and depersonalisation dimensions – instead these two dimensions collapsed into one construct, namely mental distance. In this context
thus, the specificity of burnout lies in a combination of low energy (exhaustion), poor identification (mental distance) and reduced professional efficacy (Schaufeli 2003). Based on these results, it is clear that academics on the one hand, can have negative, distinct attitudes towards their students, colleagues and treat them as objects (depersonalisation) and on the other hand develop callous attitudes towards their work and to such extent that they might lose interest in research or don’t prepare adequately for class (Seldin 1987; Singh et al. 1998).

No statistically significant scores were obtained for academic rank and qualifications. The results indicated that significant burnout differences exist between age categories. Academics between the ages 60–69 years experienced significantly lower levels of exhaustion compared to their colleagues between the ages 20–29 years, 30–39 years and 40–49 years respectively. These results partially support earlier findings of Byrne (1991) and Jackson et al. (1993) suggesting that academics aged between 20 to 39 years are more likely to feel exhausted than academics aged 50 years and older. According to Hind et al. (1974), younger academics are more likely to be involved in undergraduate teaching as opposed to rewarding tasks such as graduate teaching. As mentioned previously, both Byrne (1991) and Jackson et al. (1993) found that academics mainly involved in teaching, and particularly undergraduate teaching, are more likely to be exhausted.

The high exhaustion levels of academics aged between 40–49 years are caused by the fact that workers tend to shoulder more responsibilities and work overload as they mature (Osipow, Doty and Spokane 1985). In particular, Barkhuizen et al. (2004) found that job demands such as work overload predicted exhaustion among academic staff members. Also, given the changing nature of academic work, academics besides fulfilling traditional roles of teaching, research and service, are also expected to fulfill additional roles such as entrepreneurs, marketers and managers (Winter, Taylor and Sarros 2000). Moreover, much pressure is placed on academics to attract external funding through research grants or research consultancies (Winefield, Stough, Dua, Gillespie and Hapuararchi 2002). These authors furthermore argue that academics may not possess the necessary skills that is required to fulfil these roles, which in turn might result in a mismatch between the worker’s expectations of what the job involves and what it actually involves. Maslach and Leiter (1997) for instance suggest that burnout occurs when there is a misfit between the person self and work.

Furthermore, significant differences were found between the burnout levels of gender groups. However, ANOVA showed that the levels of exhaustion, mental distance, and professional efficacy did not differ between the gender groups.

Results also showed that academics aged between 60–69 years experienced greater professional efficacy than academics aged between 20–29 years. One explanation for this finding is that older faculty members have already achieved their career goals of professorship and tenure through research activities, whereas the younger faculty have to struggle through the hurdles of rank, tenure and international recognition (Byrne 1991). Furthermore, Byrne (1991) also found that the older faculty are more likely to be involved in graduate teaching as opposed to younger faculty members.
mainly involved with undergraduate teaching. Consequently, the smaller class sizes provide opportunity for important teacher/student dialogue which in turn lead to higher levels of professional efficacy. Taken together, younger academics in this sample experienced higher levels of than their older colleagues. Thus, burnout is not necessarily a problem encountered at the end of a long career (Neidle 1984).

In conclusion, the utility of the MBI-GS, including the depersonalisation scale of the MBI-ES has been confirmed in a sample of academics. This enabled the researchers to capture the academic’s attitude towards his/her job as well as towards the people with whom they interact (e.g. students and colleagues). Furthermore, a new three-factor structure and internal consistency of the burnout construct were confirmed.

This study had various limitations. First the reliance of this study was based solely on self-report measures. According to Schaufeli et al. (1993), the exclusive use of self-report measures in validation studies increases the likelihood that at least part of the shared variance between measures can be attributed to method variance. Secondly, another limitation is the sample of size, specifically the distribution of language groups and the sampling procedure followed in the present study, which have significant limitations in terms of the findings applied to the total population. Future studies could benefit in terms of a stratified random-sample design which would ensure sufficient representation of the different groups within the total academic population. Finally, in terms of the research design, future studies should focus on longitudinal designs where inferences regarding cause and effect could be made.

RECOMMENDATIONS

Based on the results obtained from this study, it is strongly recommended that the particular measuring instruments should be translated into the 11 official languages of South Africa. Especially Afrikaans speaking participants in traditionally Afrikaans universities were annoyed by the fact that the questionnaire was presented in English. Furthermore, future research should also focus on using both positively and negatively phrased items to measure burnout in academia. Recent research demonstrated that the psychometric value of the MBI-GS could be enhanced by including positively phrased items of the Disengagement Scale of the Oldenburg Burnout Inventory (Demerouti, Bakker, Vardakou and Kantas 2003).

Linking up with this, exploratory factor analysis could be used to test the construct equivalence of the new academic burnout conceptualisation for different language groups in South Africa. In contrast with Byrne’s (1991) remark that exploratory factor analysis may show some weaknesses, the present study obtained satisfactory results with using this factor analysis. Furthermore, the unique multicultural context of South African society provides excellent opportunities for testing the cross-cultural utility of the MBI. Therefore, it is strongly recommended that more future research should be directed toward exploring burnout among different race groups.
Finally, given the evidence that burnout is escalating among academics, with subsequent negative repercussions, it is strongly recommended that interventions should be planned to manage and/or prevent burnout of academics.

ACKNOWLEDGEMENT

The material described in this article is based upon work supported by the National Research Foundation under Grant number 2053344.

REFERENCES


Copyright of South African Journal of Higher Education is the property of South African Journal of Higher Education and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.