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French Validation of Maslach Burnout Inventory-Student Survey (MBI-SS)

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Abstract

Introduction: Several international studies have been carried out on student burnout. To contribute to the clinical examination as well as research on the mental health of students, the MBI-SS (Maslach Burnout Inventory-Student Survey) has been validated and used in different countries but not in French.

Objective: The aim of this study is to examine the validity of the three-dimensional model of the French version of the Maslach Burnout Inventory-Student Survey (MBI-SS) which is characterized by emotional “Academic Exhaustion” (EA); “Cynicism” (CY) and low scores in “Academic Efficacy” (EA).

Method: 667 university students were questioned to study the three-dimensional structure of the French translation of the MBI-SS.

Results and Conclusion: The results validate the three-dimensional structure of the Maslach Burnout Inventory-Student Survey (MBI-SS) and indicate satisfactory psychometric values. It is concluded that the MBI-SS can be used to assess burnout in French students.

Keywords: Burnout, French, MBI-SS, Psychometric characteristics, Student, Validity

1 INTRODUCTION

The transition from high school to university involves educational (course schedules, exams), social (change of living place, loss/discovery of friends) and emotional (dating, parental alienation) changes. In 2006, the World Health Organization (WHO) warned about the risks of mental distress and suicide in students and reaffirmed the need to promote their welfare when dealing with various life situations (*WHO | Prévenir le suicide: ressource pour conseillers*, 2006). A recent international meta-analysis showed an increase in anxiety and depression (Ibrahim, Kelly, Adams, & Glazebrook, 2013) and burnout (Schaufeli, Martínez, Pinto, Salanova, & Bakker, 2002) among students. In France, many studies have shown links between stress in university students and their distress or psychological suffering (Boudoukha, Bonnaud-Antignac, Acier, & Chaillou, 2011; Boujut, Koleck, Bruchon-Schweitzer, & Bourgeois, 2009; Lassarre, Giron, & Paty, 2003; Strenna, Chahraoui, & Vinay, 2009). These studies converge with those of the Student Life Observatory (OVE, 2014) and the University Preventive Medicine and Health Promotion Service (SUMPPS, 2013), which report that the majority of students say they are exhausted, with data gathered from clinical interviews. However, it is not possible to specify whether this is burnout; the major dimension “emotional exhaustion” is insufficient for the assessment of burnout (Maslach, Schaufeli, & Leiter, 2001). In international research, the Maslach Burnout Inventory-Student Survey (MBI-SS) is the tool most used. Clearly, measuring burnout among students requires investigating the generalizability of burnout as operationalized by the MBI-Student Survey in French.

1.1 Definition of burnout

The concept of “burnout” was first introduced in the 1970s by Freudenberger to describe the fatigue syndrome observed among service professionals. In fact, “burnout” designates “chronic emotional and interpersonal stressors at work” (Maslach et al., 2001, p. 399). It is characterized by a multidimensional syndrome whose components are: emotional exhaustion, referring to feelings of being depleted of one’s emotional resources; depersonalization, which refers to cynical or excessively detached responses to other people at work; and reduced personal accomplishment, which represents self-evaluation and refers to a lowered sense of efficacy (Maslach et al., 2001). In this perspective, emotional exhaustion is the central feature and the most predictive dimension of burnout.

Burnout can be described as the smothering of a fire. People at work perceive themselves as being literally “dumped” by their work. Emotional exhaustion, which refers to feelings of

being depleted of one's emotional resources, represents the basic individual stress component of the syndrome. Cynicism, as a relational dimension, is an attempt at interpersonal distancing, ignoring social conventions and common morality. The individual in difficulty or suffering from prolonged relationships with others disengages from the relationship by showing an attitude of indifference or discouragement and contempt. Finally, in connection with the other two dimensions, the individual develops a tendency to devalue his/her work and loses the sense of accomplishment and professional goals. The three dimensions interact with each other simultaneously and interdependently.

Burnout can be seen as a disengagement process because of the continued tension felt and as a state of existential loss of meaning in one's work (Pines & Keinan, 2005). On a continuum of responses, the individual who has not found or has run out of resources has the feeling of being overcome in his/her relationships due to the chronic situations he/she faces. When suffering reaches its climax, the terms "pathological burnout or burnout dysfunctional disorder" are used (Boudoukha, 2009). This can then lead to serious consequences such as difficulties in one's relationship to work (absenteeism, turnover), health problems (anxiety, depression, chronic somatic disorders, conduct disorders) or a decrease in overall life satisfaction (Hayes & Weathington, 2007).

1.2 Measure of burnout: the Maslach Burnout Inventory (MBI)

Since the 1980s, research on burnout has been conducted empirically. Burnout has been quantitatively studied through investigation by questioning a broad range of employees in professional care (doctors, nurses), public safety (police, fire) and education (teachers and educators) because of their close relationship with and commitment to the public even when suffering. It is measured by a questionnaire of twenty-two items that uses the three-dimensional structure of the Maslach Burnout Inventory (MBI) (Maslach et al., 2001). This questionnaire was first adapted specifically for service or education professions with the MBI-Human Services Survey (MBI-HSS) or the MBI-Educators Survey (MBI-ES) before being modified as the MBI-General Survey Version (MBI-GS) to be usable in all professional fields. Replication of the research and adaptation of the inventory in many countries, including translation and psychometric studies in French (Dion & Tessier, 1994) and Dutch (Schaufeli & Van Dierendonck, 1993), showed internal consistency and construct validity similar to the original version. It was therefore used later during the training of future professionals, mainly in the care sector (Dziegielewski, Turnage, & Roest-Marti, 2004; Le Tourneur & Komly, 2011).

1.3 Burnout in the student population

In recent years, the number of studies on burnout has expanded to non-occupational samples such as students and has shown that they are also subject to this phenomenon (Campos & Maroco, 2012; Capri, Ozkendir, Ozkurt, and Karakus, 2012; Galán, Sanmartín, Polo & Giner, 2011; Hu & Schaufeli, 2009. Schaufeli et al., 2002; Walburg, 2014; Watson, Deary, Thompson & Li, 2008). In fact, although being a student cannot be considered a professional status, from a psychological perspective its core activities, such as lessons and exams, are repeated stressful situations because of the expectations of academic performance. These may also be considered “work activities” (Schaufeli et al., 2002). Therefore, the stress associated with burnout may also occur among students. This exhaustion has been examined in different countries using the MBI-Student Survey (MBI-SS), which is tailored to students in fifteen items assessing academic burnout in higher education. Like the MBI-General Survey used for professionals, the MBI-Student Survey retains a three-dimensional structure: Emotional Exhaustion (EE) due to the study requirements (five items such as “*I feel emotionally drained by my studies*”); Cynicism (CY), which refers to a detached attitude towards one’s studies (four items such as “*I have become more cynical about the use of my studies*”); and Academic Effectiveness (AE) linked to a sense of achievement as a student (six items such as “*In my opinion, I am a good student*”). The assessment is carried out by the students on a six-point Likert scale ranging from 1 (never) to 6 (always).

The MBI-SS has shown satisfactory psychometric properties for the three dimensions with different student populations in different countries (Campos & Maroco, 2012; Hu & Schaufeli, 2009; Rostami, Reza Abedi, Schaufeli, Ahmadi, & Sadeghi, 2013; Schaufeli et al., 2002). However, its validity has not been established among french-speaking student populations.

The aim of the current study is to validate a french version of the Maslach Burnout Inventory-Student Survey (MBI-SS) . Indeed, having a French-speaking version of the MBI-SS is required to better evaluate the exhaustion reported by students. We hypothesize that the three-factor structure of the MBI-Student Survey, Emotional Exhaustion (EE), Cynicism (CY) and Academic Efficacy (AE), will be replicated in the French version.

2 METHOD

2.1 Forward and backward translation

Two translators, master students in psychology, conducted the translation and reverse translation of the English version of the MBI-SS. A French translator (native speaking French) first translated the English version into French and then a British translator (native speaking English) carried out the backward translation from French into English.

2.2 Sample

667 participants aged 18-25 (mean [SD] 20.7 [1.5]) were recruited from three different components of the “Grand Ouest University” in France: Psychology (n = 233), Science and Techniques of Physical and Sports Activities (STAPS) (n = 299), and Polytechnic University (Polytech'Nantes) (n = 135). 797 questionnaires have been distributed, 130 questionnaires could not be analyzed because of missing values. The confidentiality and anonymity of participants were guaranteed by the ethical code of psychologists. The sample consisted of 343 women (51.4%) and 324 men (48.6%).

2.3 Procedure

During a pre-test phase, thirty students enrolled in or summoned to the University Preventive Medicine and Health Promotion Service (SUMPPS) completed a questionnaire including socio-demographic characteristics (age, gender and level of studies) and the French version of the MBI-SS. They were interviewed about the completion of the questionnaire and the nature of the inventory to ensure its clarity of form and content; it was clear for all of them. For the actual research phase, education officials and teachers of each component were contacted in order to obtain authorization to intervene during lesson time. In agreement with the university schedule, we decide to administrate the questionnaires after the examination period, to avoid examination impact . The voluntary principle was explained orally to students and none refused to participate. Data were collected by self-administered questionnaire completed in the group during fifteen minutes in our presence. Questionnaires with missing values were not included in the analysis.

3 RESULTS

The data were first studied descriptively (Table 1) before the three-dimensional structure of the factors Emotional Exhaustion (EE), Cynicism (CY) and Academic Effectiveness (EA) was evaluated. A Confirmatory Factor Analysis (CFA), presupposing the appropriateness of the items associated with the three factors, was performed from the overall sample using the AMOS 22 computer program (Arbuckle, 2013).

Table 1: Descriptive analysis of the Maslach Burnout Inventory-Student Survey (MBI-SS)

Table 1: Descriptive analysis of the Maslach Burnout Inventory-Student Survey (MBI-SS)

	N		Mean	SD	Asymmetry	Kurtosis	Min	Max	Percentiles		
	Valid	Missing							25	50	75
EE	667	0	13.82	3.70	.57	.14	5	27	11.00	13.00	16.00
CY	667	0	13.88	2.69	.03	.30	4	23	12.00	14.00	16.00
EA	667	0	18.58	3.57	.26	.25	7	31	16.00	18.00	21.00

Reliability analysis

Regarding internal consistency, each latent factor has a Cronbach's alpha coefficient greater than .70. Like the results of Schaufeli et al. (2002), with values of 0.77 and 0.72 for the dimensions Emotional Exhaustion and Academic Efficacy, respectively, and 0.81 for Cynicism, the coefficients are above the desirable level (Nunnally, Bernstein, & Berge, 1967).

3.1 Validity analysis

First, according to the criteria of Weston & Gore (2006) of within ± 3 for skewness and ± 7 for kurtosis, the MBI-Student Survey French version presents a normal distribution; the coefficients of each item in the MBI-SS give values between -0.96 and 1.45 for asymmetry and between -0.97 and 1.88 for flattening.

Secondly, the results for correlational analyses (Figure 1) show a moderate positive link between the dimensions Emotional Exhaustion and Cynicism ($r < 0.49$) and a negative one between Cynicism and Academic Efficacy factors ($r > -0.58$). The dimensions Emotional Exhaustion and Academic Efficacy ($r < -0.2$) maintain their low negative links.

Finally, as regards the loadings of the items, except for item Q13 that has a saturation < 0.4 in the Emotional Exhaustion factor, the items saturate the latent factor model with values above 0.60 for the Emotional Exhaustion and Cynicism dimensions. In other words, the items heavily saturate these two dimensions (Costello & Osborne, 2005).

Table 2: Confirmatory factor analysis of the tested model (N = 667).

Model	df	χ^2	χ^2/df	RMSEA	CFI	TLI
MBI-SS	87	522.6***	6.00	0.08	0.85	0.83

A Confirmatory Factor Analysis (CFA) (Figure 1) was used to test the suitability of the model on the entire sample. It was studied by several fit indices such as Chi2, the Root Mean Square Error of Approximation or error of approximation (RMSEA) and incremental indexes: the Confirmatory Fit Index (CFI) and the Tucker-Lewis Index (TLI). With a value of 0.08 for the RMSEA and 0.8 for the CFI and TLI respectively (Table 2), the French version of the MBI-SS model has an acceptable fit (Hu & Bentler, 1999; Schumacker & Lomax, 2004).

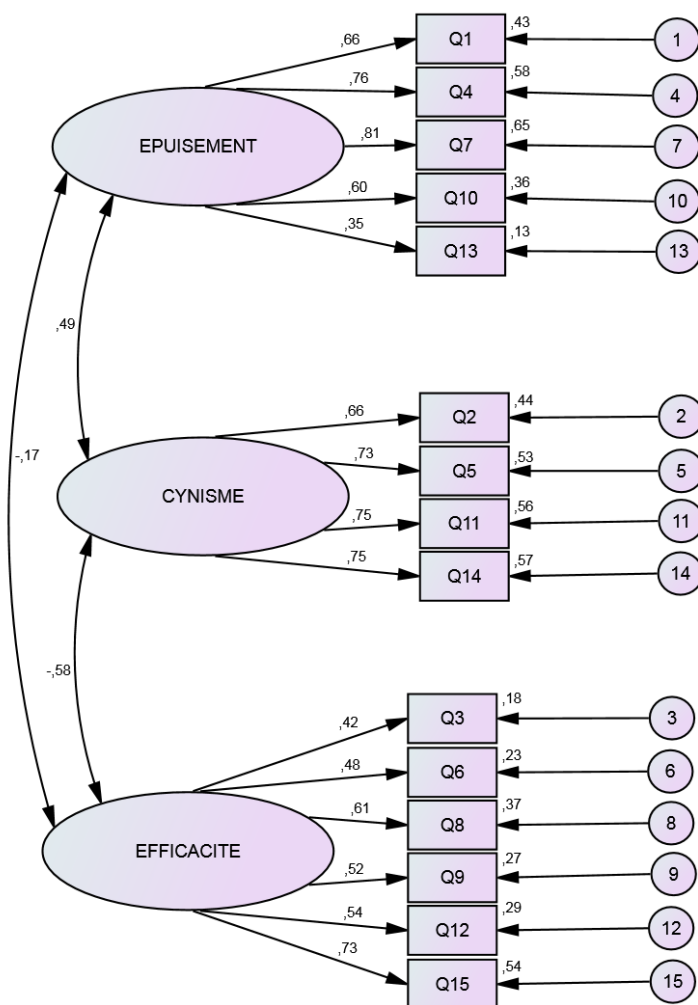


Figure 1: Hierarchical structure of the MBI-Student Survey French version

4 DISCUSSION

Burnout is a phenomenon that has been studied for decades and is well-known in the professional world. For ten years, it has also been studied with academic populations (Walburg, 2014). This aim of this work was to examine the psychometric properties of the French version of the Maslach Burnout Inventory-Student Survey (MBI-SS).

A limitation of this study is that the students were recruited only from a university in France. However, the French language is used in several countries and therefore it would be interesting to compare the findings of this research with those from other French-speaking areas.

Regarding reliability, our results show coefficients whose values are adequate for each of the studied dimensions. Furthermore, the factor structure of the inventory is just acceptable while its construct validity, although satisfactory, appears low. In particular, the inconclusive results for the Academic Efficacy dimension challenge the “third dimension” of academic burnout i.e. to experience the feeling of (in)efficacy (Brandon Morgan, 2014; Bresó, Salanova, & Schaufeli, 2007). Our results are quiet similar to those observed in Spanish, Portuguese or Dutch MBI-SS versions (Schaufeli, Martinez, Pinto, Salanova & Bakker, 2002) or in Chinese (Hu & Schaufeli, 2009).

Regarding its applications, the French version of the Maslach Burnout Inventory-Student Survey (MBI-SS) was used to evaluate a multimodal prevention program of burnout from models based on Behavioral, Cognitive and Positive Therapies during research to develop knowledge about the mental health of students.

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Items de la Maslach Burnout Inventory-Student Survey (MBI-SS)

- Epuisement émotionnel (EE) :
 1. Je me sens émotionnellement vidé(e) par mes études
 4. Je me sens à bout à la fin d'une journée à l'université
 7. Je me sens épuisé(e) par mes études
 10. Je me sens fatigué(e) quand je me lève le matin et j'ai à affronter une autre journée à l'université
 13. Etudier ou assister à un cours m'est vraiment éprouvant

- Cynisme (CY)
 2. Je suis moins intéressée par mes études depuis mon inscription à l'université
 5. Je me sens moins enthousiaste par rapport à mes études
 11. Je suis devenue plus cynique par rapport à l'utilité potentielle de mes études
 14. Je doute du sens de mes études

- Efficacité académique (EA)
 3. Je sais régler efficacement les problèmes qui arrivent dans mes études
 6. Je crois que je contribue efficacement aux cours auxquels j'assiste
 8. A mon avis, je suis un(e) bon(ne) étudiant(e)
 9. J'ai appris beaucoup de choses intéressantes au cours de mes études
 12. Je me sens dynamisé(e) quand j'atteins mes objectifs académiques
 15. En cours, je me sens efficace dans mon travail

Niveaux de sévérité de burnout académique

- Epuisement émotionnel :

Faible : [5 ; 13]

Modéré : [14 ; 22]

Sévère : [23 ; 30]

- Cynisme

Faible : [4 ; 10]

Modéré : [11 ; 17]

Sévère : [18 ; 24]

- Efficacité Académique

Faible : [6 ; 16]

Modéré : [17 ; 26]

Sévère : [27 ; 36]