Academic stress and burnout among primary school trainee teachers in the Rabat-Sale-Kenitra region

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Abstract: During the training phase, the trainee teacher seems to be more and more confronted with discomfort and stress, due to the accumulation of demands and obligations. Many of them are mostly unable to take it any longer, which makes them vulnerable to the burnout risk.

This research aims to study the academic burnout of trainee teachers at the “Centre Régional des Métiers de l'Education et de la Formation” (CRMEF) of the Rabat-Sale-Kenitra region during 2019/2020.

Four hundred and fifty trainee teachers responded to a self-questionnaire comprising the Maslach Burnout Inventory-Student Survey (MBI-SS) scale in its French version, as well as certain stress factors.

In agreement with the literature, more than 60% of teachers show moderate and high levels of academic exhaustion, the main likely stressors presented are financial instability, and training overload.

Many trainee teachers cannot cope with the burnout syndrome, which conducts to stress and absenteeism during the training, we hope that this study will lead to some practical solutions to prevent and reduce the risk of academic burnout.

Keywords: Burnout, Trainee teacher, CRMEF, Maslach Burnout Inventory-Student Survey (MBI-SS) scale, Stress

Introduction

The burn-out syndrome was first introduced by Freudenberger in the 1970s to reveal professional exhaustion (which concerns people who exercise a profession in contact with individuals is regular). [1] Freudenberger [2] defined burn-out as being the state of frustration and depression caused by devotion to a profession. It results in a decrease in commitment to work, also called the clapper disease.

Christina Maslach, [3] professor of social psychology, defined burnout as the mental and physical exhaustion of people whose work requires constant contact with others. She is also the original inventor of the most used psychometric test evaluating this syndrome; the Maslach Burnout Inventory (MBI). This test, in the literature, covers around 90% of research studies in this field. In its first version, the MBI was designed for caregivers. A very large number of articles published around the world are devoted to caregiver’s burnout. [4] It has three dimensions: the first one, which is the most central, is emotional exhaustion, the second one is cynicism and the third one is academic efficiency. [5,6]

Studies on Burnout in Morocco have, as the literature indicates, focused on professional burnout especially among health care workers. [7,8] However, trainee teachers also seem to be very vulnerable to the syndrome of academic exhaustion.

In order to assess burnout among trainee teachers (in training), a specific version dedicated to MBI-SS students (Maslach Burnout Inventory-Student Survey) developed by (Faye-Dumanget C, et al, 2017) [1] was elaborated. This instrument has been shown to be valid and reliable in previous studies. The verification of this instrument reliability was examined in this study (Cronbach's Alpha = 0.798).

The objective of this study is to evaluate the three dimensions of the Maslach burnout Inventory Student Survey (MBI-SS) scale on a sample of primary trainee teachers at CRMEF, as well as certain stressors. The MBI-SS has shown satisfactory psychometric properties for its three dimensions on different students' populations in several countries. [9-12]

The questionnaire was formally structured in a digital version and was conducted in the regional centers of education and training professions in the region of Rabat-Sale-Kenitra. One center (RABAT) and four annexes (Kenitra - Sidi kacem - Khemisset) participated in this study. The total number of primary trainee teachers in this region is 607.
Methodology

1. Participants

The primary trainee teachers (in training) from all the training centers in the Rabat Sale Kenitra region were eligible for the study, n = 450 with an average age of 26, with a male majority of 63%.

2. Material

The questionnaire contains:
- Sociodemographic characteristics (Age / Gender / Place of residence / financial source)
- The (MBI-SS) inventory is made up of 15 items for which the participants provide information on a six-point Likert scale ranging from 1 (never) to 6 (always). These fifteen items explore Emotional Exhaustion (EE), Cynicism (CY) and Academic Effectiveness (AE)

The questionnaire was validated by the experts (three research professors) members of the education, environment and health laboratory of CRMEF RABAT.

3. Procedure

First of all, we obtained the agreement of the Ministry of National Education, Vocational Training, Higher Education and Scientific Research, through the director of the CRMEF of RABAT to conduct the survey. In the 2019/2020 academic year, the number of primary trainee teachers in the Rabat-Sale-Kenitra region was 607 spread over four training centers (Rabat / Kenitra / Khemisset / Sidi kacem). The number of participants was 492 approximately 81%, but only 450 of the trainees met the eligibility criteria of our study, which is 74%.

The administered questionnaire consists of five parts:
- The first four parts concern stressors linked to the following factors: Sociodemographic / Personal / Student life / Interpersonal relationship. The fifth part concerns the Maslach Burnout Inventory Student Survey (MBI-SS) scale in its version in French (15). [1]
- The extreme values are [5; 30] for EE, [4; 24] for CY and [6; 36] for AE.
- The MBI-SS scale does not contain a final score. To determine the levels of severity, the three dimensions of the Maslach scale are analysed on standard intervals:
  - Emotional exhaustion (EE): low [5; 13], moderate [14; 22], high [23; 30]; Cynicism (CY): weak [4; 10], high [11; 17], severe [18; 24]; Academic Efficiency (AE): low [6; 16], moderate [17; 26], high [27; 36].

The data collection took place from April until July 2020. The questionnaire was digitally administered (due to COVID-19 situation), the participation of trainee teachers was voluntary and their answers were anonymous.

A first sample of 40 trainee teachers was submitted to our questionnaire at the CRMEF in Rabat (test), the process was repeated on the same sample after 3 weeks (Re-test). Then the final test took place after some modifications on terms that were incomprehensible or misinterpreted by our sample.

The collected data was coded directly on SPSS statistics version 21. Out of 492 responses, 42 were not coded for several reasons: (Repetition / empty response / irrelevant responses.) 450 trainee teachers met the eligibility criteria of our study.

Results

1. MBI-SS assessment and some stressors

We assessed the main stressors linked to academic burnout for a sample of trainee teachers. The choice of the Rabat-Sale-Kenitra region is due to the proximity factor, as well as the region has a large number of trainee teachers.

492 responses were collected, but only 450 were validated. The participants were on average 26 + -0.5 years old. 63% of them were men. The majority of them were single (79.2%) with at least a bachelor degree (bac + 3) (72%), and 23% had a master degree (bac + 5). About 5% of the participants held a doctoral degree.

58.9% of the participants had moderate emotional exhaustion, while 18.3% of them suffered from severe emotional exhaustion. More than half of the trainee teachers had moderate to severe levels of cynicism. 44% of the study sample had a moderate level of academic efficiency, while 38.7% of them had a severe level of the third component of academic burnout. [Table 2]

The majority of trainee teachers who present a level of severe burnout in EE and CY, had common characteristics, namely the distance from the main residence, thus, they oblige themselves to borrow for financing the first months of training. given that the disbursement of the scholarship is often late. The participants with a degree of concern (strong to very strong) towards the following factors: transport-accommodation-catering-delay of the scholarship, present a level of academic efficiency which is moderate and sometimes severe.

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Table 1: Distribution of student trainee according to their socio-demographic characteristics

| Variable          | 450 participants |   |   |
|-------------------|------------------|---|---|
|                   | N    | %  |   |
| Gender            |       |    |   |
| Male              | 285  | 63 |   |
| Female            | 165  | 37 |   |
| Study level       |       |    |   |
| Bachelor          | 324  | 72 |   |
| Master            | 103  | 23 |   |
| PhD               | 23   | 5  |   |
| Training at the center |     |    |   |
| Primary           | 450  | 100|   |
| Funding           |       |    |   |
| Scholarship       | 158  | 35 |   |
| Family support or loan | 270 | 60 |   |
| Savings           | 22   | 5  |   |

2. Assessment of emotional exhaustion (EE)

It is the main component of the academic burnout syndrome. It is measured through five items (For example: I feel emotionally drained by my training). Our results show that the moderate to severe levels represent two thirds (67.4%) of the syndrome score.

3. Cynicism Assessment (CY)

Cynicism is the second component of academic burnout syndrome, it is measured according to four items (e.g. I feel less enthusiastic about my training). Our results show that moderate to severe levels represent more than half of teachers surveyed (58.1%)

4. Academic Effectiveness Assessment (AE)

Academic efficiency is the third dimension of academic burnout, measured by six items (For example: I learned a lot of interesting things during my training). Among the teachers interviewed, 44.1% have a moderate level of AE, with a high rate of 38.3%.

Table 2: Distribution of trainee teachers according to their burnout level

| Variable          | 450 participants |   |   |
|-------------------|------------------|---|---|
|                   | N    | %  |   |
| Emotional exhaustion |     |    |   |
| Low               | 103  | 22.8| |
| Moderate          | 265  | 58.9| |
| High              | 82   | 18.3| |
| Cynicism          |       |    |   |
| Low               | 188  | 41.7| |
| Moderate          | 223  | 49.5| |
| High              | 39   | 8.8 | |
| Academic efficiency |     |    |   |
| Low               | 78   | 17.3| |
| Moderate          | 198  | 44  | |
| High              | 174  | 38.7| |

Discussion and conclusion

The literature reveals that the majority of research on burnout has only concerned professionals (Health / Administration). Indeed, the same concept of burnout was first created to describe the suffering of caregivers’ population; [4] Rare are the studies on academic burnout in Morocco, and none has been devoted to stress among teachers during training.

The training period is a key stage in a teacher's career, which includes new events (new learning, situation and challenge). In our study, we tried to focus on the teacher who is the backbone of any educational system, especially in the training phase, where the trainee teacher must have all the necessary conditions to carry out his mission with ardor. However, following the multiple social changes, the professional and personal situation of these teachers is not favorable, which generates an accumulation of stress and failure in the adaptation strategy. [13]; These are just the symptoms of burnout.

The results used confirm our hypothesis on the existence of exhaustion among Moroccan trainee teachers, which deserves a little reflection on the possible causes of this burnout.

The changes that future teachers accompany, namely the new lessons, the overload of the program, the introductory course, the unstable financial situation and the distance from residence place are not without difficulties and can be the main causes of stress.

Moreover, our study shows that 60% of teachers are obliged to borrow either from their family or from a...
credit company to meet the daily needs for training (housing, catering, travel instead of internship, photocopy, ...)[Table1].

Our study agrees with the results of burnout syndrome. In the literature, more than 50% of trainee teachers suffer from moderate to severe academic burnout. Especially in Spain with 44.8% moderate to severe emotional exhaustion among medical trainees [4], and 45.4% of medium to severe level of cynicism among trainees studying in French-speaking Switzerland. [14].

This majority reveals signs of exhaustion in the face of training requirements, which seems to be a warning signal in the face of the development of the syndrome. More than 50% of the teachers questioned feel blocked and tired, 57% of them have sleep disturbances and loss of appetite during training.

It, therefore, seems necessary to resort practical measures to preserve the mental health of trainees; introduce them to stress management, provide them with the necessary financial resources, and provide social support within training centers. In conclusion, the prevention of the burnout syndrome among future teachers seems essential and urgent, it makes it possible to increase the feeling of efficiency in them; protect their mental health and that of their students during the internship and after the training.

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References

[1] C. Faye-Dumanget, J Carré, M. Le Borgne, AH. Boudouka, French validation of the Maslach Burnout Inventory-Student Survey (MBI-SS). J Eval Clin Pract, vol. 23, no. 6, pp. 1247-1251, (2017). DOI: 10.1111/jep.12771.

[2] HJ. FREUDENBERGER, G. RICHELSO, Burnout: How to beat the high cost of Success, Bantam Books. New York, pp. 6, (1980).

[3] C. Maslach. Burned-out. Human Behavior, no. 5, pp. 16-22, (1976).

[4] F. Galán, A. Sanmartín, J. Polo, & L. Giner, Burnout risk in medical students in Spain using the Maslach Burnout Inventory-Student Survey. International Archives of Occupational and Environmental Health, vol.84, no. 4, pp. 453–459, (2011).

[5] C. Maslach, and S.E Jackson. The measurement of experienced burnout. Journal of Occupational Behaviour, no. 2, pp. 99–113, (1981).

[6] C. Faye-Dumanget, et al. L’épuisement académique chez les étudiants : effet des variables sociodémographiques sur les niveaux de burnout. Annales Médico-Psychologiques, vol. 176, no. 9, pp.870-874,(2018). DOI:10.1016/j.amp.2017.09.012

[7] O. Barmoussa, H. El Meghraoui, I. Haddiya, & Y. Bentata, Syndrome du burnout chez les résidents en néphrologie au Maroc. Néphrologie & Thérapeutique, vol. 14, no. 5, pp. 388 (2018). DOI: 10.1016/j.nephro.2018.07.312.

[8] A. E. Kettani, Z. Serhier, M.B. Othmani, M. Agoub, & O. Battas. L’évaluation du syndrome du Burnout chez les médecins en formation au CHU Ibn Rochd de Casablanca. Pan African Medical Journal, vol. 27, no 243, (2017). DOI: 10.11604/pamj.2017.27.243.6257

[9] D. Truchot. Épuisement professionnel et Burnout : concepts, modèles, interventions. Dunod Paris, pp. 200, 2004.

[10] S. Valérie, P-A. Doudin. Le risque de burnout chez les étudiants à l'enseignement, In Évolutions sociales, innovations et politiques : Nouveaux enjeux en psychologie de la santé, Ed des archives contemporaines pp. 111-114, (2016).

[11] Q. Hu, W. Schaufeli. The factorial validity of the Maslach Burnout Inventory-Student Survey in China. Psychol Rep, vol. 105, pp. 394-408. (2009)

[12] Z. Rostami, M. Reza Abedi, W. Schaufeli, A. Ahmadi, AH. Sadeghi. The psychometric characteristics of Maslach Burnout Inventory Student Survey: among students of Isfahan university. Zahedian J Res Med Sci (ZJRMS), vol. 15 pp. 29-32 (2013).

[13] WB. Schaufeli, IM. Martinez, M. Pinto AM, Salanova, AB. Bakker. Burnout and engagement in university students a cross-national study. J CrossCult Psychol, vol. 33, no. 5, pp. 464-481, (2002).

[14] JADB. Campos,J. Maroco Adaptação transcultural Portugal-Brasil do Inventário de Burnout de Maslach para estudantes. Rev Saúde Pública, vol. 46, no. 5, pp. 816-824, (2012).

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