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Influence of socioprofessional determinants on teachers' mental well-being

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ABSTRACT. Aims. To assess the influence of socio-professional factors on mental health of teachers at primary and secondary schools.

Materials and Methods. It's a cross-sectional study, lasted 3 months of the year 2014. This study involved a representative sample of teachers working in public schools. Data collection was based on a survey sheet prepared beforehand and describing socio-demographic and occupational characteristics of the participants. Mental health was assessed by the GHQ 30 score in its validated version in Arabic.

Results. Study population was composed of 255 teachers with a participation rate of 78.43%. This population was characterized by a slight female predominance (57.5%) with a sex ratio of 0.73. The mean age was 43.54 ± 8.9 years. Of the responding teachers, 17% felt that their profession was poorly perceived by the society. More than half of participants were satisfied with their profession (68.8%). Relational constraints with parents were reported by 50.5% of teachers. Seventy-one teachers reported having problem of indiscipline in class.

The mean GHQ score was 7.21 ± 6.24 . Teachers' psychological health deterioration was significantly correlated with smoking ($p = 0.03$, $OR = 0.2$, $IC = [0.05-0.9]$), pathological antecedents ($p = 0.02$, $OR = 3.6$, $IC = [1.1-10]$), feeling guilty toward pupils passivity ($p = 0.01$, $OR = 3.8$, $IC = [1.3-10]$), to professional seniority ($p = 0.008$, $OR = 0.2$, $IC = [0.06-0.6]$), to the image referred back by the society ($p = 0.005$, $OR = 4.9$, $IC = [1.6-15]$), to emotional exhaustion and personal satisfaction ($p = 0.00$, $OR = 12.7$, $IC = [3.4-47]$).

Conclusion. Acting on these factors through a collective preventive approach headed by the Ministry of Education is necessary to reduce the rate of psychological distress among teachers and therefore improve the quality of teaching.

Key words: teachers, GHQ, risk factors, school, work conditions, evaluation.

RIASSUNTO. INFLUENZA DEI DETERMINANTI SOCIO-OCUPAZIONALI SUL BENESSERE MENTALE DEGLI INSEGNANTI. **Obiettivi.** Valutare l'influenza dei fattori socio-professionali sulla salute mentale degli insegnanti nelle scuole primarie e secondarie.

Materiali e Metodi. Studio cross-sectional, durato 3 mesi dell'anno 2014. Questo studio ha coinvolto un campione rappresentativo di insegnanti che lavorano nelle scuole pubbliche. La raccolta dei dati è stata basata su un foglio di indagine preparato in precedenza e descrivendo le caratteristiche socio-demografiche e professionali dei partecipanti. La salute mentale è stata valutata con il punteggio GHQ 30 nella versione convalidata in arabo.

Risultati. La popolazione di studio era composta da 255 insegnanti con un tasso di partecipazione del 78,43%.

Questa popolazione è stata caratterizzata da una leggera

Introduction

A predisposition for psychiatric morbidities among teachers is largely admitted in the general public, also by teachers themselves. The American Institute of Stress places teaching, especially at the secondary level, at the head of the ten most stressful occupations (1).

Because mental health problems are linked to turnover, absenteeism and rising of social security services costs, mental health at work is a preoccupied problem for employers as well as to deciders (2). In Canada, the annual cost of stress is estimated to be between \$ 8-10 billion in absenteeism and \$ 36 billion in presentism where presentism is defined as the fact that an individual goes to work but its productivity and efficiency are reduced due to stress (3). In area education, according to the Federation of scholar's commissions in Quebec, teacher's disabilities cost approximately \$ 125 million per year. Of this amount, \$ 34 million is payed for burnout-related absences.

Stress is deleterious to the health of teachers but also can alter the quality of teaching. For example, absenteeism due to stress is a real nuisance in terms of pedagogical follow-up in the field of education, where pupil must adapt to a new teacher in the middle of the school year which causes a trouble in understanding or other significant academic difficulties in the student (4).

Therefore, this study was conducted to assess the influence of sociodemographic and professionals factors on the mental health of teachers.

Patients and Methods

This is a cross-sectional survey carried out during three months in 2014 with teachers working in the secondary schools, colleges and primary schools in the city of Mahdia, in Tunisia. They are not included teachers on leave.

After a random sampling in two clusters, study population was composed of 255 teachers, with a participation rate of 78.43%.

Data collection was based on a survey sheet prepared beforehand, distributed to teachers and recovered after a

predominanza femminile (57,5%) con un rapporto di sesso di 0,73. L'età media era di 43,54 ± 8,9 anni. Tra gli insegnanti rispondenti, il 17% ha ritenuto che la loro professione fosse percepita dalla società. Più della metà dei partecipanti erano soddisfatti della loro professione (68,8%). I vincoli relazionali con i genitori sono stati segnalati dal 50,5% degli insegnanti. Settantuno insegnanti hanno riferito di avere problemi di indisciplina in classe.

Il punteggio medio di GHQ era di 7,21 ± 6,24. Il deterioramento della salute psicologica degli insegnanti è stato significativamente correlato con il fumo ($p = 0,03$, OR = 0,2, IC = [0,05-0,9]), antecedenti patologici ($p = 0,02$, OR = 3,6, IC = [1,1-10]), la passività degli alunni ($p = 0,01$, OR = 3,8, IC = [1,3-10]), l'anzianità professionale ($p = 0,008$, OR = 0,2, IC = [0,06-0,6]) la rappresentazione sociale ($p = 0,005$, OR = 4,9, IC = [1,6-15]), l'esaurimento emotivo e la soddisfazione personale ($p = 0,00$, OR = 12,7, IC = [3,4-47]).

Conclusioni. Agire su questi fattori attraverso un approccio collettivo preventivo guidato dal Ministero dell'Istruzione è necessario per ridurre il tasso di disagio psicologico tra gli insegnanti e pertanto migliorare la qualità dell'insegnamento.

Parole chiave: insegnanti, GHQ, fattori di rischio, scuole, condizioni di lavoro, valutazione.

few days. This sheet included items related to the description of participants' socio-demographic characteristics (gender, age, marital status, number of dependent children, smoking, alcohol consumption, leisure activity, somatic and psychological morbidities, etc.) and occupational characteristics (educational level, occupational mobility, status, level of education, etc.).

The assessment of stressors factors was based on the description of administrative burden, relationship with authorities, stress and lack of discipline in the classroom, and relationship with colleagues and parents.

Mental health was evaluated with the GHQ questionnaire. This test consists of 30 items, each item has 4 responses. The respondent characterizes his / her current state (during the last few weeks) relative to his usual state in the areas of anxiety, depression and relational tensions. The addition of scores from the thirty items results in the formulation of an "overall score" or "severity score" (6).

Data was entered and analyzed using the SPSS 20 software. For statistical tests, the significance level p was set to 0.05.

Results

1 - Sociodemographic characteristics

Studied population was characterized by a female predominance (57.5%) with a sex ratio at 0.73 and a mean age of 43.53 ± 8.9 years. The majority of teachers were married (89%), 77% of the spouses worked on a regular schedule and 15.7% have had unstable job.

The average number of dependent children was 2.44 [0-5 child]. In this study, 83% of teachers lived in their own homes and 16.8% were tenants. The average distance between the school and the residence place was 7.7 km. Nearly half of teachers traveled by their own means of transport (51.5%), 32.5% on foot and 16% on a common

means of transport. The frequency of non-smoker teachers was 83% and that of alcohol consumers was 5.5%. The practice of leisure activities was reported by 65% of teachers.

A pre-existence of somatic morbidities was noted in 19.5% of teachers. The most cited diseases were heart disease, rheumatologic diseases, endocrine disorders (diabetes, hypertension, dysthyroidism), asthma and allergy and 9.5% of teachers had a psychiatric history (Table I).

2 - Professional characteristics

In this study, 69.7% of teachers had a master's diploma and 20.2% had a university diploma on primary education. The average length of service was 18 ± 9.6 years with tenure at the current school of 10.4 ± 8.7 years.

Teachers attended 4.33 ± 3 classes with an average working hour per week of 17.5 ± 2.26 hours.

Among studied population, 75.1% did not have professional mobility, while 24.9% claimed to have had a professional mobility and the most common reason was reconciliation of spouse (66%).

In this study, 68.8% was satisfied with their profession. Whereas, 17% felt that their profession was badly perceived by the society.

Almost half of teachers reported having stress in their work (56%) and 13% of them reported that they worked overtime with an average duration of 3.48 ± 2.9 hours per week.

An overload of the program and meetings was reported by 99 and 16 teachers respectively. A poor relationship with the authorities (the inspectorate) was described by 7.6% of teachers and 20.4% had the impression of authoritarianism in their work. The average number of students per class was 26 ± 3.36 with extremes ranging from 14 to 33 students. Nearly half of the teachers (59.8%) reported heterogeneous academic competence of their students and 35.5% of teachers felt guilty about the passivity of students. Relational problems with colleagues were described by 37.9% of teachers. Similarly, relational constraints with parents were reported by 50.5% of teachers. This was either excessive demand from parents (21.9%) or a sense of duty (28.6%). Among teachers, 31% complained of indiscipline and a heavy atmosphere during classes.

3 - Mental Health (GHQ)

The mean GHQ score was 7.21 ± 6.24. Nearly half of teachers had a mental health disorder (41.4%).

The psychological distress of teachers was significantly correlated with gender ($p = 0.01$), unstable spouse work ($p = 0.03$), irregular spouse's work schedule ($p = 0.03$), somatic and psychiatric preexisting morbidities.

Some occupational factors had a significant influence on the mental health status of teachers, including seniority in the profession ($p = 0.05$), occupational mobility ($p = 0.004$), the image referred back by the society ($p = 0.008$), dissatisfaction with the professional ideal ($p = 0.00$) and feeling of stress ($p = 0.05$).

Mental suffering was also correlated with the impression of authoritarianism ($p = 0.001$), the poor relationship

Table I. Socio-demographic characteristics of studied population

Socio-demographic characteristics		Number	%
Gender	Male	86	42.5
	Female	114	57.5
Age	<40 years	74	36.8
	≥40 years	126	63.2
Matrimonial Statut	Maried	178	89
	Single	18	9
	Divorced	2	1
	Widowed	2	1
Spouse work	Stable	169	95
	Instable	9	5
Spouse's work schedule	Regular	154	86.5
	Iregular	24	13.5
Dependent children	0	6	3.6
	1-3	136	82.4
	>3	23	14
Habitat	Owner	166	83
	Tenant	34	17
Distance	≤5 km	138	69
	>5 km	62	31
Travelling time	<15mn	126	63
	25-60 mn	71	35.5
	>60 mn	3	1.5
Means of travel	Own transportation	103	51.5
	On foot	65	32.5
	Public transport	32	16
Smoking	Non-smoking	166	83
	Smoking	20	10
	Former smoker	14	7
Alcohol consumption	Yes	11	5.5
	No	189	94.5
Leisure activities	Yes	130	65
	No	70	35
Somatic preexisting morbidities	Yes	39	19.5
	No	161	80.5
Psychiatric preexisting morbidities	Yes	17	
	No	65	

with the inspectorate ($p = 0.04$), feelings of guilt over pupil passivity ($p = 0.02$), the poor relationship with colleagues including the lack of collaboration among colleagues and the feeling of being sidelined ($p = 0.001$). The pupil's lack of discipline and pensive atmosphere ($p = 0.04$) and lack of respect for pupils ($p = 0.000$) are significantly related to mental suffering (Table II).

After the multivariate logistic regression, we noted that the impression of authoritarianism multiplied by ≈ 13

the risk of psychological suffering of teachers ($p < 0.00$, OR = 12.7, IC = [3.4 - 47]).

Patients with a history of pathology who felt guilty about the passivity of students and felt that their profession was poorly perceived by society were ≈ 4 -5 times more likely to develop psychological distress.

Non-smoking and tenure in the profession less than 10 years had a protective effect against impaired mental health (Table III).

Table II. Influence of socioprofessional factors on the mental health of teachers, after univariate analysis

	Mental disorder (GHQ > 6)		
	Nombre	%	P
Gender			
Male	27	31.8	0.017
Female	55	48.7	
Image referred back by the society			
Well-perceived	36	36.4	0.008
Misperceived	28	59.6	
Sensation of Stress			
Yes	64	57.7	0.000
No	18	20.7	
Spouse Work			
Stable	58	38.9	0.03
Unstable	19	59.4	
Spouse's work schedule			
Regular schedule	49	36	0.03
Irregular hours	28	63.6	
About the professional ideal			
Satisfied	44	32.6	0.000
Disappointed	37	59.7	
logement			
Owner	65	40.1	0.37
Tenant	16	48.5	
Professional mobility			
Yes	26	60.5	0.004
No	45	35.2	
Professional seniority			
≤10 years	29	52	0.05
>10 years	53	37	
Somatic preexisting morbidities			
Yes	25	65.8	0.00
No	55	34.8	
Psychiatric preexisting morbidities			
Yes	17	89.5	0.00
No	65	36.3	

Discussion

In this study, teachers have had a high prevalence of psychiatric disorder, estimated at 41.4%. Similar results were described in some scientific researches. Brazilian studies of private school teachers found proportions of common mental disorders between 20.1% and 41.5% (6). In public education, the prevalence was 50.3% (7). In Germany, a study revealed that 29.8% of teachers had significant mental health problems (8). For workers in general and teachers more specifically, mental health varies according to various determinants, linked to both individuals and professional characteristics.

In this study, teacher's mental health is significantly related to gender (48.7% of women vs. 31.8% of men).

The inequitable division of domestic labor is an obvious explanation. Women are constantly confronted to the choice or the balance between work and family life (9). This conflictual situation makes women more vulnerable to stress and more predisposed to psychiatric disorders.

Table III. Influence of socioprofessional factors on the mental health of teachers, after logistic regression

	p	OR	IC
Smoking	0.03	0.2	0.05 - 0.9
Somatic preexisting morbidities	0.02	3.6	1.1 - 10
Feeling guilty to the passivity of students	0.01	3.8	1.3 - 10
Professional seniority	0.008	0.2	0.06 - 0.6
Image referred back by the society	0.005	4.9	1.6 - 15
Impression of authoritarianism	0.00	12.7	3.4 - 47

Mental health of teachers was significantly correlated to the instability and the irregular schedule of spouse work, which can be explained by the feeling of economic discomfort, lack of support and family instability. More recently, Vilija Malinauskiene found in his study of 372 health workers between 2008 and 2009 in Kaunas, that a family on economic crisis is a powerful predictor of a mental distress with an adjusted OR of 2.5 (10).

According to Houlfort's study (2010), 21% of teachers were suffering from conflictual situation between work and familial life, 35% said that this conflicts were mainly due to the fact that once at home, they are too exhausted to participate as they wish in their personal lives (11).

Among individual determinants involved in mental health disorders, several authors identify health problems (12, 13); as is the case with our study.

Psychological disorders of teachers are significantly correlated with the professional seniority. Former teachers were more vulnerable to psychological distress than younger people ($p = 0.008$, $OR = 0.2$, $IC = [0.06-0.6]$). This was consistent with findings of Houlfort et al., who noted that less experienced teachers report less psychological distress and this group are less affected by occupational stressors, with greater satisfaction with their need for autonomy than more experienced teachers (11).

In this study, the linear correlation of job tenure with mental health disorders can be explained by a decrease in cognitive and physical abilities of former teachers in mechanisms of stress management. For some authors, this suffering is linked to successive reforms of education which constrain the activity of the teacher, faced with organizational changes, such as introduction of new information and communication technologies. This can increase the psychological burden of the older teacher. So that, the end of the career is therefore more linked to a withdrawal of an experiment from a binding system than to the chronological age (14).

In this study, the state of mental health is not correlated with the level of education. According to Helen Askill-Williams et al. (2014), primary school teachers showed much more positive attitudes and actions towards mental health compared to their colleagues in high school (15).

Among respondent teachers, 17% felt that their profession was badly perceived by society. After logistic regression, a statistically significant correlation was found

between the risk of psychological suffering and the negative image referred back by the society ($p = 0.005$, $OR = 4.9$, $IC = [1.6-15]$).

According to several studies, teachers feel that they are not fully recognized. They show significant public pressure, while highlighting the lack of recognition of their work (48, 38). There would be not only a loss of status, but also severe criticism and judgment.

In the literature, ambiguities of role and work overload have been identified as contributed factors to work-related stress among teachers (18, 19). Liu and Ramsey examined teachers' satisfaction with various aspects of their employment with 236 teachers in the United States. They reported that there is a negative relationship between workload and job satisfaction (20).

Our study showed that psychological suffering is linked to the overload of educational programs and the number of hours work per week. Similar findings were described by Chennoufi in 2012 among 398 teachers in public schools in the governorate of La Manouba in Tunisia, showing that 66.4% of teachers were suffering from stress at work. Five factors were identified as sources of stress, specifically related to difficult working conditions (80.3%), work overload (75.2%), administrative difficulties (70.4%), problems with pupils and parents, students (64.4%) and lack of organization at work (57.1%) (21).

Today in Tunisia, social, economic and cultural changes, as well as the changes and repeated reforms of the education system have involved new operating modalities and increased workloads. Within this perspective, and given the increasing demands, risk factors would be linked to an imbalance between the demands of the work environment and the ability of the individual to use his or her skills.

The quality of the relational climate with management is a determining factor of mental health according to Janosz et al. (22).

In this study, the relationship with the administration is significantly related to the psychological suffering in particular the relation with the inspectorate and the sensation of authoritarianism, which are in agreement with the literature. In fact, Kovess-Masfety et al. studied the prevalence and occupational risk factors of psychiatric disorders among public school teachers in France according to their level of education. The survey was carried out among 3,586 teachers. They identified a very strong correlation between colleague and administrative support and good psychological health at work (23).

In our study, 37.9% reported having relational problems with their colleagues; 28.8% reported having a lack of collaboration with colleagues and 9.1% felt they were being sidelined. These factors are significantly related to the psychological disorders of our study population.

Pupils are the key element of teaching work. The pupil-teacher relationship and the behavior of pupils in the classroom constitute a pejorative determinant of the psychological health of teachers (24, 25). According to Martineau et al., classroom management and the maintenance of discipline are the most important difficulties for teachers (26). Brown et al. showed that the poor relation-

ship with pupils (pupils' indiscipline, difficult students, demotivated) is a factor of psychological distress among teachers (27). Similarly, the European Agency for Safety and Health at Work notes that the increase in the number of students and their lack of discipline are the main factors of stress for teachers (28). Indeed, a large number of students in one class increases the risk of losing control, which in turn increases the workload.

According to this study, psychological suffering is strongly linked to lack of discipline, heavy atmosphere during classes and lack of respect for students. In addition, we have shown a positive correlation between psychological distress and feelings of guilt in the face of student passivity.

Student behavior and progress can function not only as sources of stress, but also as sources of satisfaction when they have a well-behaved class with children making progress.

A significant relationship between psychological distress and a poor relationship with the parents, more specifically, the impression of having to justify oneself. Indeed, parents maintain psychological distress in teachers by the lack of valorization and the many solicitations. Similarly, some parents question the authority about professional judgment of teachers, which is a source of demotivation, dissatisfaction and psychological pain at work (27).

Conclusions

This study, which is mainly descriptive, despite certain methodological limitations, has proved to be relevant to the extent where we objectified the degree of teachers' mental health problems; while insisting that it is not an identification of patients but rather disorders related to conditions or situations whose undervaluation may be the cause of illness.

The decline in teachers' mental health is dependent on individual and work-related psycho-organizational factors, which prompts a consideration of multidisciplinary preventive actions, managed by the Ministry of Education to improve the mental health of teachers and therefore guarantee a high-quality of learning.

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