

Available online at www.sciencedirect.com



Procedia Social and Behavioral Sciences

Procedia - Social and Behavioral Sciences 174 (2015) 3434 - 3440

INTE 2014

The school organisational health questionnaire: contribution to the Italian validation

Gloria Guidetti^a, Daniela Converso^a*, Sara Viotti^a

^aDepartment of Psychology, University of Turin, Via Verdi 10, Turin, 10124, Italy

Abstract

Teaching is a stressful occupation, one of the professions with the highest levels of mental health problems. Some studies suggested that this may be due to professional isolation, high levels of emotional labour and main stressors may include disciplinary problems, low salaries, disagreement with colleagues or with parents. Few instruments have been validated specifically for assessing teachers stress, morale and school organisational climate: the School Organisational Health Questionnaire (SOHQ: Hart et al., 2000) is the main one, whose properties of the Italian version are here presented (337 teachers in Italy filled out a self report questionnaire including the SOHQ scales).

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the Sakarya University

Keywords: scale validation; teachers stress; school organisational climate

1. Introduction

Teaching is a highly stressful occupation, as highlighted in several decades of research in the field of Occupational Health Psychology (Travers & Cooper, 1996; Guglielmi & Tatrow, 1998; Kyriacou, 2001; Zurlo, Pes & Cooper, 2007). Some studies have suggested that this may be due to the professional isolation, the high levels of emotional labour which teaching entails and the long-term responsibility for children's lives. The main stressors may include disciplinary problems, low salaries, disagreement with colleagues or conflict with parents redefinition of job conditions as a consequence of school reforms, workload, role conflict and ambiguity and poor working conditions (Travers & Cooper, 1996; Kyriacou, 2001; Zurlo, Pes & Cooper, 2007).

Research suggests that teaching is one of the professions with the highest levels of mental health problems. In Italy it was found that almost 25% of teachers perceive high stress (Zurlo & Pes, 2013), and the percentage increases to

* Corresponding author: Tel.: +039-11-6702044; fax: +039-11-6702790. E-mail address: daniela.converso@unito.it

70% among temporary teachers (Zurlo & Pes, 2012). Moreover, although teachers represent only the 18% of persons enrolled in the National Institute for Insurance against Accidents at Work (INAIL), the 37% of questions for total inability were submitted by this occupational category (about the half of these are for psychiatric disorders, see Lodolo D'Oria et al., 2006).

In the face of high social responsibility and a very evident reciprocal relation between the wellbeing of teachers and students (Caprara et al., 2006; Denny et al., 2011), who now work in schools is pointed out as one of the social group most at risk of unease, and this could subsequently negatively impact the quality of the teaching process and the teacher-student relationship. Moreover, Cordeiro et al. (2002) have noticed that the strain experienced by teachers is indeed to be attributed more to factors linked to the social context rather than to the classroom: teachers seem to experience – more than any other category – social disvalue, poor valorization and acknowledgement of their commitment.

Although many studies indicate antecedents of malaise, stress and burnout, only in recent times, studies recognized the link between organizational health and teacher wellbeing (e.g. 1988; Wearing et al., 1990; Hakanen et al., 2006; Skaalvik & Skaalvik, 2011; Velasco et al., 2013). Research has also shown how teacher affect could be an important determinant of student learning outcomes and students' wellbeing, highlighting the importance to establish the determinants of teachers' negative outcomes, but also positive affective ones that are associated to their work (Rowe, 1992; Danny et al., 2011; Converso et al., 2014). It could be stated that positive experiences and morale may have an independent impact from negative experiences and psychological distress to teacher quality of work life (Hart, 1994; Hart, Wearing & Headey, 1995). However, as noted by Evans (1992), teacher morale has gained little attention in empirical research.

The morale construct has been differently operationalized and measured. Definitions vary between morale as a group phenomenon (persistence and energy, cohesion and cooperation and enthusiastic striving among teachers (Smith, 1996), and morale as an individual psychological state (Doherty,1988; Evans, 1992) similar to positive affect (Watson, 1988). As stated by Hart et al. (2000), measurement tools, like the Staff Morale Questionnaire (Meaney & Smith, 1988), failed to differentiate the causes from the manifestations of morale. While Doherty (1988) developed a measure of teacher morale that was referred to as "a number of heterogeneous items related to adjustment and mental health" (*ibidem*, p. 72) that are more likely to derive dispositional levels of negative affect. In contrast, Hart & Conn (1992) stated that morale is "a unitary construct [...] associated with the energy, enthusiasm, team spirit and pride that teachers experience in their school".

Although in literature different scales can be found to assess various aspects of school organizational climate (Owens, 1991; Rentoul & Fraser, 1983), none of them measures issues typical of most organizations. In fact, as stated previously, research indicates that in the school context, organizational factors, e.g., leadership and social support, are more important than classroom specific issues, e.g., students' behavioral management, in determining psychological outcomes among teachers (Hart, Wearing & Conn, 1995a; Cordeiro et al., 2002) and aspects of human resource management, e.g., opportunity for professional growth and role clarity, are linked to teachers' wellbeing and job satisfaction.

In line with these statements and in order to understand the determinants of teacher morale, Hart et al. (2000) developed a self-reported questionnaire, called *School Organizational Health Questionnaire* (SOHQ), consisting of organizational factors and aspects of human resource management as there are few available measure that assess both of these aspects typically addresses by organizational development interventions.

In the Italian context, to date, there is a lack of measurement tools that specifically addressed the organizational antecedents of occupational wellbeing in the school context.

2. Aim and Method

The aim of this study was to develop the Italian version of SOHQ and to examine its psychometric proprieties among teachers staff.

2.1. Data collection

Teachers from eighteen public school institution in a region of Northern Italy were involved during the academic year 2012/2013. Presentation of the project, sharing of content, objectives and modalities of implementation were first presented to School Leaders, and consequently to all the participants involved in the research project.

The self-reported questionnaire was administered, anonymously, to a total sample of 378 teachers, and its completion was based on consent for the processing of the data, conducted in privacy and in accordance with current Italian legislation. It took place during working hours, at the individual sites, in the presence of researchers of the Department of Psychology who were available for clarification about the compilation.

2.2. Measures

The data were obtained by means of a self-reported questionnaire including a socio-demographic section and the SOHQ (Hart et al. 2000). The original version of SOHQ consisted of 57 items grouped in 12 sub-dimensions: *Morale* (M, 5 items), *Appraisal & Recognition* (AR, 6 items), *Curriculum Coordination* (CC, 4 items), *Effective Discipline Policy* (EDP, 4 items), *Excessive Work Demands* (EWD, 4 items), *Goal Congruence* (GC, 5 items), *Participative Decision Making* (PDM, 4 items), *Professional Growth* (PG, 5 items), *Professional Interaction* (PI, 7 items), *Role Clarity* (RC, 4 items), *Student Orientation* (SO, 4 items) and *Support Leadership* (SL, 4 items). All items included in the version presented in the study by Hart et al. (2000) were translated from English into Italian using the back translation method (Brislin, 1970, 1986) and included in the questionnaire. Also the following instructions were translated into Italian 'Listed below are a number of statements that could be used to describe some aspects of your school'. Teachers were asked to respond to each item on a 4-point scale, ranging from 'strongly disagree' to 'strongly agree'.

Data analysis were performed using SPSS.

2.3. Participants

337 teachers filled out the questionnaire correctly and thus were considered for the presented study. 68 (20.2%) of them were nursery teachers, 169 were teachers of primary school (50.1%) and 100 (29.7%) of secondary school.

90.2% (n=308) were female and 6.8% (n=23) were male. Participants were aged between 24 and 63 years (M= 45.32; sd=8.83). Educational level were 50.1% had completed high school, 15.4% had a bachelor degree, 18.7% a master degree and 7.4% a PhD or a specialization degree. Most of the participants were married (70.2%), 17.5% single, 5.6% divorced and 1.8% widowed. 65.9% had at least one child.

Concerning professional data, participants had a job tenure in the Italian public school system ranging from less than a year to 41 years (mean: 19.67; sd=10.68). The majority had a permanent (72.5%) and full-time contract (85.2%).

3. Results

In order to determine the factor structure of Italian version of SOHQ, an exploratory factor analysis (EFA) was carried out by entering all 57 items in the model. Maximum Likelihood (ML) as Estimation Method and Varimax as the rotation Method used. Since the factorial model did not reproduced the structure as expected, three further and consequent EFAs were performed. At each step, items were progressively deleted if they fulfilled at least one of the two following criteria: factorial loading less than .30 or cross-loading on more than one dimensions (with a loading greater than .30 on more than one factor). Moreover, at the last EFA, all items loading on a factor including less than 3 items were eliminated.

Final solution comprised 34 items grouped in 7 dimensions that explain globally 68.57% of the variance (see table 1). The Kaiser-Meyer-Olkin measure (KMO = .90, greater than .70) and Bartlett's test of sphericity (χ^2 = 5463.5, p = .00) indicate that the factor model is appropriate. The first factor explains 32.49% of the variance and comprises all 7 items of Professional Interaction, the second factor explains the 9.30% of the variance and contains all 5 items of Supportive Leadership. The third one encompasses all items of Morale (5 items; 7.21% of the variance). The forth

one was Student Orientation (all 4 items included in the original model: 6.04%). The fifth one comprises four of six items of the dimension of Appraisal and Recognition (5.62%). The sixth and seventh comprise respectively all items of Professional Growth (4.62%) and Excessive Work Demand (3.64%).

			Rotated	l factor matrix			
	Factors						
	1	2	3	4	5	6	7
PI6	.759	·	·	·			·
PI2	.737	÷		·			·
PI3	.722			·	·	·	
PI7	.694						
PI1	.607	·	·	·			·
PI5	.545						
PI4	.527						
SL2	·	.828		·	·	·	
SL3	·	.828		·	·	·	
SL1	· · · · · · · · · · · · · · · · · · ·	.752					
SL4	·	.714		·	·	·	
SL5	·	386		·	·	·	
M2	·		.791	·	·	·	
M5			.759				
M1	·		.666	·	·	·	
M3			.652	÷			
M4			.578				
AR2				.918			
AR1				.850			
AR4				.715			
AR6				.649			
SO3		÷		·	.739		
SO2				÷	.713		
SO1					.604		
SO4		÷			.595		
PG4				÷		.755	
PG3						.654	
PG1				÷		.639	
PG5		· ·			· ·	.534	· ·
AR5		· ·			· ·	.382	· ·
EWD3		· ·			· ·	· ·	807
EWD4							767
EWD1		· ·			· ·	· ·	692
EWD2							465

Table 1	EEA results	· Factor	loading	of 34	factor solution.	
Table 1.	EFA lesuits	. ractor	roaunig	01 54	lactor solution.	

As shown in table 2, all sub-scales included in the Italian version have a Cronbach's Alpha greater than .70.

Table 2: Description of subscales included in the Italian version of SOHQ.

Factor	Number of items	M(ds)	α	
Professional Interaction	7	3.24(.53)	.891	
Supportive leadership	5	3.18 (.63)	.878	
Morale	5	2.56 (.54)	.848	
Appraisal and recognition	4	3.00(.75)	.847	
Student Orientation	4	3.31(.52)	.783	
Professional Growth	5	2.65(.64)	.782	
Excessive Work Demands	4	2.76 (.67)	.791	

4. Discussion

The findings of this study conducted on an Italian sample of teachers suggests that the Italian version of the Organizational Health Questionnaire has only 7 of the original 12 dimensions proposed by Hart et al. (2000). Overall, the dimensions explain the 68.57% of the variance and all the sub-scales report a good internal consistency. Hence, the analysis pointed out that the versions consisting of 34 items represent a valid and reliable tool for assessing morale and climate among Italian teachers.

The reason that Effective Discipline Policy and Curriculum Coordination, do not surface as constitutive factors in the Italian version could be attributed to both cultural and organizational factors of Italian school context. Concerning EDP, we can observe that in the Italian culture the topic of discipline, especially if it refers to the school context, is controversy and could evoke a concept that does not match well with a "open-minded" philosophy of education ("discipline" as the concept of "excessive rigidity", "scarcity of freedom", etc.). As a consequence, teachers responding to the questionnaire probably did not consider this dimension as an aspect that fosters a positive and serene school climate.

Concerning CC, in the Italian school there are usually few or no activities that are conducted at the interclass level. This could represent a reason for what this dimension does not contribute to define school climate for Italian teachers. In the same vein, Goal Congruence and Participative Decision Making refer to a shared vision of the work and the organization, that, as highlighted by Zurlo et al. (2007) it is difficult to find in Italian school in which teachers jobs are more focused on their own work in the classes, rather than on teamwork.

Since the present study has adopted an exploratory approach, the future studies should take up a confirmatory approach, i.e., CFA, and should be oriented to add empirical evidences that allowed to determine if the factor structure here found fits other samples of Italian school teachers. Finally, as no convergent and discriminant validity analyses are available from this study, future research could further implement these analyses, also with the aim to explore the influence of each dimension on psychological and physiological health conditions perceived by teachers.

Despite these limitations, this questionnaire represents the only validated measure, for the Italian context, of the teacher morale and school organizational climate, assessing organizational behavior and issues of resource management. In that sense it represents a useful tool for the study of the antecedents and consequences of teacher morale.

* Reverse item		ncluded in the Italian version
Morale	Clima	yes
There is good team spirit in this school	M1- In questa scuola c'è un buon clima	yes
The morale in this school is high	M2- In questa scuola il morale è alto	yes
Teachers go about their work with enthusiasm	M3-Qui gli insegnanti lavorano con entusiasmo	yes
Teachers take pride in this school	M4-Qui gli insegnanti si sentono orgogliosi	yes
5. There is a lot of energy in this school	M5-In questa scuola c'è molta energia	yes
Appraisal and Recognition	Valutazione e Riconoscimento	
I am regularly given feedback on how I am performing my role	AR1- Ricevo regolarmente dei feedback su come svolgo il mi- ruolo/lavoro	o yes
I am happy with the quality of feedback I receive on my work performance	AR2- Sono soddisfatto della qualità dei feedback che ricevo circa risultati del mio lavoro	i yes
There is a structure and ongoing process that provides feedback on my work performance	AR3-In questa scuola vengono forniti regolarmente dei feedbac sulla performance lavorativa	
I have the opportunity to discuss and receive feedback on my work performance	AR4-In questa scuola ho l'opportunità di discutere i feedback ch ricevo sul mio lavoro	e yes
Teachers receive recognition for good work	AR5-In questa scuola gli insegnanti sono valorizzati se svolgono u buon lavoro	
I am encouraged in my work by praise, thanks or other recognition	AR6-In questa scuola sono incoraggiato nel mio lavoro d apprezzamenti, ringraziamenti o da altri riconoscimenti	a yes
Curriculum Coordination	Integrazione tra classi	
There is sufficient contact between different sections of the school in curriculum planning	CC1-C'è sufficiente contatto tra le diverse sezioni (interclasse) dell scuola nella pianificazione della programmazione curriculare	a no
There is effective coordination of the curriculum in this school	CC2-In questa scuola c'è un efficace coordinamento nell pianificazione dei percorsi didattici	a no

Appendix: The School Organisational Health Questionnaire - Italian version

Teachers consult with each other about their teaching and curriculum	CC3-Qui gli insegnanti <u>si</u> confrontano tra loro circa i diversi programmi di studio	no
Teaching	CC4-Qui gli insegnanti si coordinano secondo le diverse aree disciplinari	no
Effective Discipline Policy	Efficacia delle regole disciplinari	
The rules and sanctions relating to discipline in this school are well understood by both staff and students.	EDP1-In questa scuola le regole e le sanzioni disciplinari sono chiari sia al personale sia agli studenti EDP2 un guesto scuola edi une filosofia condinina gina la disciplina.	no
There is an agreed philosophy on discipline in this school	EDP2-In questa scuola c'e' una filosofia condivisa circa la disciplina	no
My own expectations about discipline are the same as most other teachers at this school	EDP3-Condivido le mie opinioni sugli aspetti disciplinari con la maggior parte degli altri insegnanti di questa scuola	no
The rules and sanctions relating to discipline are not enforced in a consistent fashion in this school	EDP4-In questa scuola le regole e le sanzioni in materia di disciplina non sono applicate in modo coerente	no
Excessive Work Demands	Carico di lavoro eccessivo	
Teachers are overloaded with work in this school	EWD1-Qui gli insegnanti sono sovraccarichi di lavoro	ye
There is too much expected of teachers in this school	EWD2 In questa scuola ci si aspetta troppo dagli insegnanti	v
There is constant pressure for teachers to keep working	EWD3-Qui gli insegnanti sentono di essere costantemente sotto pressione	ye ye
There is no time for teachers to relax in this school	EWD4-Qui gli insegnanti non hanno tempo per pause e/o recupero	ye
Goal Congruence	Concordanza di obiettivi	
There is agreement in the teaching philosophy of this school	GC1-In questa scuola vi e' una filosofía condivisa di ciò che significa insegnare	no
The staff are committed to the school's goals	GC2-Qui gli insegnanti sono impegnati e coinvolti negli obiettivi della scuola	no
The school has a clearly stated set of objectives and goals	GC3-In questa scuola obiettivi e progettualità sono definiti in modo chiaro	n
My personal goals are in agreement with the goals of this school	GC4-I miei obiettivi personali sono in sintonia con gli obiettivi della scuola in cui insegno	n
The goals of this school are not easily understood	GC5-In questa scuola gli obiettivi non sono facilmente comprensibili	n
Professional Growth	Crescita Professionale	
Others in the school take an active interest in my career development and professional growth	PG1-In questa scuola vi è chi si interessa per lo sviluppo della mia carriera e la mia crescita professionale	ye
am encouraged to pursue further professional development	PG2- In questa scuola sono incoraggiato a pormi obiettivi di crescita professionale sempre più elevati	ye
The professional development planning in the school takes into account my individual needs and interests	PG3-In questa scuola vengono presi in considerazione i miei bisogni e interessi personali	ye
There are opportunities in this school for developing new skills	PG4-In questa scuola ci sono opportunità per lo sviluppo di nuove competenze	ye
It is not difficult to gain access to in-service courses	PG5-In questa scuola non è difficile accedere a corsi di formazione in orario di servizio	ye
Participant decision making	Partecipazione al processo decisionale	
I am happy with the decision-making processes used in this school	PDM1-Sono soddisfatto dei processi decisionali in uso in questa scuola	n
There is opportunity for staff to participate in school policy and decision-making	PDM2-Qui gli insegnanti hanno la possibilità di contribuire alle politiche scolastiche e partecipare al processo decisionale	n
There are forums in this school where I can express my views and opinions	PDM3-In questa scuola dispongo di spazi in cui esprimere le mie opinioni e pareri	n
Teachers are frequently asked to participate in decisions concerning administrative policies and procedures in this school Professional Interaction	PDM4-Qui gli insegnanti sono spesso chiamati a partecipare alle decisioni che riguardano gli aspetti amministrativi e procedurali Rapporti con i colleghi	n
school	PII-In qusta scuola c'è una buona comunicazione tra il personale	ye
receive support from my colleagues	PI2-Ricevo sostegno dai miei colleghi	ye
Teachers in this school can rely on their colleagues for support and assistance when needed	P13-Qui gli insegnanti possono contare sui loro colleghi per un supporto in caso di necessità	ye
There is good communication between groups in this school	PI4-In questa scuola c'è una buona comunicazione tra i diversi gruppi	ye
Feachers frequently discuss and share teaching methods and strategies with each other	PI5-Qui gli insegnanti discutono e condividono abitualmente metodi e strategie di insegnamento con i colleghi	ye
I feel accepted by other staff in this school	PI6-Mi sento integrato nel gruppo degli insegnanti di questa scuola	ye
I have the opportunity to be involved in cooperative work with other members of staff	PI7-In questa scuola ho l'opportunità di essere coinvolto e cooperare con gli altri Chionere di mulo	ye
Role Clarity	Chiarezza di ruolo	
I am always clear about what others at school expect of me	RC1-In questa scuola mi è chiaro cosa si aspettano gli altri da me	no
My work objectives are always well defined	RC2-I miei obiettivi di lavoro sono sempre ben definiti	n
I always know how much authority I have in this school	RC3-In questa scuola so quanto è autorevole il mio ruolo	no
I am clear about my professional responsibilities Student Orientation	RC4- So con chiarezza quali sono le mie responsabilità professionali Orientamento allo studente	n
This school promotes the concept of students being individuals	SO1-In questa scuola si promuove la concezione degli studenti come individui	ye
Students are treated as responsible people in this school	SO2-In questa scuola gli studenti sono trattati come persone	ye

	responsabili	
Students in this school are encouraged to experience success	SO3-In questa scuola gli studenti sono incoraggiati a sperimentarsi	yes
Students have access to advice and counseling when needed	SO4-In questa scuola gli studenti hanno la possibilità di avere un supporto e consulenza in caso di necessità	yes
Supportive Leadership	Leadership supportiva	
There is support from the administration in this school	SL1-In questa scuola vi è supporto da parte della direzione	yes
There is good communication between teachers and the administration in this school	SL2-In questa scuola c'è una buona comunicazione tra insegnanti e direzione	yes
The administration in this school can be relied upon when things get tough	SL3-In questa scuola si può contare sul supporto della direzione nelle situazioni difficili	yes
I am able to approach the administration in this school to discuss concerns or grievances	SL4-In questa scuola è possibile avere un rapporto diretto con la direzione per discutere di problemi o presentare lamentele	yes
The school's administrators don't really know the problems faced by teachers*	SL5-In questa scuola il Dirigente Scolastico non conosce realmente i problemi che gli insegnanti devono affrontare*	yes

References

Brislin, R.W. (1970) Back-Translation for Cross-Cultural Research. Journal of Cross-Cultural Psychology 1.

Brislin, R.W. (1986) TheWording and Translation of Research Instruments. In W.L. Lonner & J.W. Berry, eds Field Methods in Cross-Cultural Research. Newbury Park, CA: Sage.

Caprara G.V., Barbaranelli C., Steca P. & Malone P.S. (2006). Teachers'self efficacy beliefs as determinants of job satisfaction and students' academic achievement. A study at the school level, *Journal of School Psychology*, 44, 473-490.

Converso, D., Badagliacca, R. & Viotti, S. (2014). La reciprocità del benessere di insegnanti e studenti nel settore educativo. Psicologia e scuola, marzo-aprile, 11-18.

Cordeiro Castro J.A., Gestoso C.G., Gala L., & Javier F. (2002). La sindrome di burnout nella scuola elementare spagnola: risultati di una ricerca finalizzata all'intervento, *Psicologia della salute*, 3, 111-123.

Denny, S., Robinson, E., Utter, J., Fleming, T., Grant, S., Milfont, T., Crengle, S., Ameratunga, S. & Clark, T. (2011). Do school influence student risk-taking behaviors and emotional health symptoms? *Journal of Adolescent Health*, 48, 259-267.

Doherty, J. (1988). Psychological morale: Its conceptualization and measurement. The Inventory of Psychological Morale (DIPM), *Educational Studies*, 14, 65-75.

Evans, L. (1992). Teacher morale: An individual perspective. Educational Studies, 18, 161-171.

Guglielmi, S.R. & Tatrow, K. (1998). Occupational stress, burnout, and health in teachers: A methodological and theoretical analysis. Review of educational research. 68, (1), 61-91.

Hakanen, J.J., Bakker, A.B. & Schaufeli, W.B. (2006). Burnout and work engagement among teachers. Journal of School Psychology, 43, 495-513.

Hart, P.M. & Conn, M. (1992). Stress, morale and teachers. Education Quarterly, No.8, 38-40.

Hart P.M., Wearing A.J., Conn M., Carter N.L. & Dingle R.K. (2000). Development of the School Organisational Health Questionnaire: A measure for assessing teacher morale and school organisational climate. *British Journal of Educational Psychology*, 70, 211-228.

Hart, P.M. (1994). Teacher quality of work life: Integrating work experiences, psychological distress and morale. *Journal of Occupational and Organizational Psychology*, 67,109-132.

Hart, P.M., Wearing, A.J. & Conn, M. (1995a). Conventional wisdom is a poor predictor of the relationship between discipline policy, student misbehavior and teacher stress. British Journal of Educational Psychology, 65, 27-48.

Hart, P.M., Wearing, A.J. & Headey, B. (1995b). Police stress and well-being: Integrating personality, coping and daily work experiences. Journal of Occupational and Organizational Psychology, 68, 133-156.

Kyriacou C. (2001), Teacher stress: directions for future research», Educational Review, 53, 1, 27-35.

Lodolo D'Oria V., Pecori Giraldi, F., Vitello, A., Vanoli, C., Zeppegno, P. & Frigoli P (2006). Burnout e patologia psichiatrica negli insegnanti. Studio Getzemani, Milano, Http://www.edscula.it/archivio/psicologia /burnout.

Meaney, D. & Smith, K.R. (1988). The assessment and development of staff morale. The Practising Administrator, 10, 14-17.

Owens, R.G. (1991). Organizational behavior in education (4th ed.). Boston: Allyn & Bacon.

Rentoul, A.J. & Fraser, B.J. (1983). Development of a school-level environment questionnaire. *Journal of Educational Administration*, 21, 21-39. Rowe, K.J. (1992, June). Identifying Type I errors in educational and social research: Comparisons of results from fitting OLS and multilevel

regression models to hierarchically structured data. Paper for thr 3rd National Social Research Conference, University of Western Australia. Skaalvik, E.M. & Skaalvik, S. (2011). Teacher job satisfaction and motivation to leave the teaching profession: Relations with school context,

feeling of belonging, and emotional exhaustion. *Teaching and Teacher Education*. 27 (2011) 1029-1038.

Smith, K.R. (1966). A proposed model for the investigation of teacher morale. Journal of Educational Administration, 4, 143-148.

Travers, C.J., & Cooper, C.L. (1996). Teacher under pressure: stress in the teaching profession. London. Routledge.

Velasco, V., Miglioretti, M., Celata, C. & Vecchio, L.P. (2013). Il benessere degli insegnanti. Psicologia della salute, 2, 52-70.

Watson, D. (1988). Intraindividual, interindividual analyses of positive, negative affect. Journal of Personality & Social Psychology, 54, 20-30.

Wearing, A.J., Bell, R., McMurray, N.E., Conn, M. & Dudgeon, P. (1990). Teacher stress in Victoria. A survey of teachers' views. The report. Melbourne: Education Shop.

Zurlo, M.C., Pes, D. & Cooper, C.L. (2007). Stress in teaching. A study of occupational stress and its determinants among Italian schoolteachers. Stress and Health, 23 (3), 231-241.

Zurlo , M. C. & Pes , D. (2012). Effort-Reward Imbalance e salute psicofisica degli insegnanti. GIMLE, 34 (2), 81-87.

Zurlo, M. C. (2013). Stress dimensions of Italian and German teachers: a comparative study with the E.R.I. Model. In E. Schafroth , M. Nicklaus, C. Schwarzer, & D. Conte (Eds.), *Italien, Deutschland, Europa: kulturelle identitäten und interdependenzen*. Oberhausen, Germany: Athena. 233-251.