

TEACHERS' IRRATIONAL BELIEFS AND THEIR RELATIONSHIP TO DISTRESS IN THE PROFESSION

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This paper examines the relationship between teachers' irrational beliefs and different measures of teacher distress. To this end, 71 secondary education teachers responded to the Teacher Irrational Beliefs Scale (TIBS). The relationship between TIBS scores and scores on the Teacher Burnout Questionnaire-Revised (CBP-R), Symptoms Checklist-90-R (SCL-90-R) and Beck Depression Inventory (BDI) was analyzed. Results show a high level of burnout and a significant positive correlation between teachers' irrational beliefs and all teacher distress variables considered in this research. In particular, attitudes of low tolerance to frustration have a significant influence on the levels of stress, depression and physical symptoms.

Key words: Teacher distress, Burnout, Irrational beliefs.

En el presente trabajo se estudia la relación entre la presencia de creencias irracionales en profesores y las puntuaciones en distintas medidas de malestar docente. Para ello, a los sujetos (71 profesores de educación secundaria) se les aplicó la escala Escala de Creencias Irracionales del Profesor (TIBS, Teacher Irrational Beliefs Scale) y se analizó su relación con las puntuaciones en las pruebas Cuestionario de Burnout del Profesorado-Revisado (CBP-R), Symptoms Checklist-90-R (SCL-90-R) y Beck Depression Inventory (BDI). Los resultados muestran un elevado nivel de desgaste profesional y una correlación positiva y significativa de las creencias irracionales del profesor con todas las variables del malestar docente consideradas en este estudio. En concreto, las actitudes de baja tolerancia a la frustración juegan un papel fundamental en los niveles de estrés, depresión y sintomatología física.

Palabras clave: Malestar docente, Burnout, Creencias irracionales.

The accelerating pace of social change, the rise in (sometimes contradictory) demands on teachers, the uncertainties regarding educational reform, plus the scarcity of resources and the deteriorating social image of teachers are some of the factors behind what has been labelled "teacher distress" (Esteve, 1987; Cordeiro et al., 2003 & Ortiz Oria, 1995), defined as "the combination of negative circumstances affecting the teacher personality, generated by the combined action of the social and psychological conditions under which teaching takes place" (Esteve, 1987). *Teacher distress* has often been associated with *burnout*, but *burnout* should rather be seen as one of the manifestations of teacher distress. The term *burnout* refers to the reaction to a chronic stressor that arises among workers in the caring professions in relation to the features of the different job-specific demands, the symptoms of which are mental and physical exhaustion, a cold and depersonalised attitude

to others and a sense of inadequacy regarding the tasks to be carried out (Maslach and Jackson, 1981).

The teaching profession and its setting involve a set of conditions that make it what some observers call a *risk profession* (Álvarez et al., 1993; Ortiz Oria, 1995). Indeed, some studies comparing stress and *burnout* levels across professional groups have found higher levels of stress in teachers than among other professionals (Álvarez et al., 1993; Pithers and Fogarty, 1995; Punch and Tuettemann, 1990). Recent international studies calculate that approximately 60% to 70% of teachers repeatedly show stress symptoms, and at least 30% of teachers have *burnout* symptoms. (Antonioni, Polychroni and Walters, 2000; Capel, 1992; Lale, 2001; Rudow, 1999). In a sample of Spanish primary teachers, Martínez-Abascal and Bornás (1992) found 35% suffering from some degree of depression, with around 66% of male and 83% of female teachers showing medium to high levels of stress. Manassero, Fornés, Fernández, Vázquez and Ferrer (1995) found that 40.3% of 614 non-university teachers (from pre-school to secondary) on the Balearic Islands suffered from high or extreme levels of *burnout*. More recently, Cordeiro et al. (2003) have found a 25% depression rate among a sample of primary teachers in the Bay of Cadiz

The original Spanish version of this paper has been previously published in *Clínica y Salud*, 2005, Vol. 16, No 1, 45-64

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region, even though a higher incidence of teacher distress is usually associated with secondary than with primary teachers (Guerra, 2002; Guerrero, 1996; Matud, García & Matud, 2002).

On analysing problems of teacher stress or *burnout*, a variety of studies have taken the idea of stress posited by transactional or interactive models as their starting point. These models, such as that of Lazarus and Folkman (1986), see stress as a dynamic interaction *process* between the subject and the environment in which he or she acts. This stress *process* would be made up of the stressful situations (antecedent variables), mediating variables (of the subject, especially cognitive variables) and responses or reactions to stress. Lazarus postulates that although it is true that stressful conditions exist in the majority of cases, and that certain personality features make the subject more likely to react strongly in situations of stress, the fundamental fact is that the sources of stress are always in some measure *individual*, as are the ways in which people cope with it (Lazarus, 1995).

Some of the most relevant theories regarding the main emotional manifestations of teacher distress, stress and depression have underlined the importance of *cognitive variables* in explaining this problem. One such case is the model based on Rational Emotive Therapy (RET, Ellis, 1962). Ellis (1978) states that "stressful conditions vary significantly in relation to the perceptions and cognitions of those who react to these conditions," and that, although some situations can be intrinsically stressful, in the majority of cases people create their own negative feelings because of their beliefs about the situation. Their troubled reactions to stress stem directly from their beliefs. The RET model, then, assumes that some teachers are more likely to develop irrational beliefs towards the school environment, and that their beliefs make them experience the demands and threats in a much more stressful way than those teachers who face the same stressors from a more rational perspective. Irrational beliefs, according to Ellis, are those which are illogical, not very empirical and which hinder the effective functioning of the individual and the achievement of the goals he or she has set (Lega, Caballo and Ellis, 1997). Irrational beliefs act in such a way as to exacerbate the stressors present in the school environment (Forman, 1994). Some studies have analysed the relationship between the irrational beliefs of the teacher and the different expressions of teacher distress (Bernard, 1988; Calvete and Villa, 1999; Endes, 1996). Bernard (1988) found that self-disparaging attitudes and low frustration tolerance were associated with high levels of teacher stress. Those teachers who set themselves high standards

of achievement and approval, and who criticised themselves when they failed to meet them or when they were criticised by colleagues, ran a higher risk of suffering stress than those teachers who held irrational beliefs to a lesser extent. Teachers with low frustration tolerance and who believed that *teaching is too hard* and that *teaching should not be so difficult* had greater chances of becoming intensely stressed in the face of time pressures and work overload. Teachers with authoritarian attitudes towards pupils tended to experience excessive stress when confronting pupils with behavioural problems in the classroom. Bernard also studied the relationship between teacher stress, their irrational beliefs and the coping skills they used in the classroom, such as time management, relaxation, or use of social skills. He came to the conclusion that high stress levels could hinder teachers from using and/or developing coping skills to help them manage the situations.

In Spain, Calvete and Villa (1999) found a significant relationship between different types of irrational beliefs (inadequacy, authoritarianism and frustration tolerance) and the symptoms of stress and *burnout* among secondary school teachers. More specifically, teachers with strong feelings of inadequacy had higher scores on the emotional exhaustion and anxiety scales; those teachers with more authoritarian attitudes towards their pupils scored more highly on emotional exhaustion and symptoms of depression; while those with low frustration tolerance scored more highly on emotional exhaustion, symptoms of depression and somatisation.

In a further study carried out by Endes (1996) on the results of a behaviour intervention by the school psychologist, it was found that treatment was less effective for those teachers who had high levels of irrational beliefs than for those with low levels.

Although the results of these studies provide evidence of a link between irrational teacher beliefs and the symptoms arising from teacher distress, the presence of irrational beliefs among teachers and their possible relationship with teacher distress has been little studied.

For this reason, our main objective in this paper is to study in more depth the relationships between some of the most important symptoms of teacher distress (*burnout*, stress symptoms, depression and absenteeism) and the irrational beliefs of teachers. We believe that greater definition in the variables associated with the symptoms arising from teacher stress will permit an improvement in the design of preventive guidelines and therapies focused on the cognitive-behavioural processes that contribute to the appearance and/or continuity of these symptoms.

METHOD

Participants

The sample for this study is made up of 71 secondary school teachers from three schools in the Madrid region. One is a state-run school, while the other two are state-subsidised private schools. Male teachers make up 43.7% (n = 31) of the sample and female teachers 56.3% (n = 40), with a mean age of 41.54. Table 1 shows the frequencies and percentages of the teachers' work variables. It is interesting to note that 33.8% of the sample have less than 10 years of experience, while 26.8% have from 10 to 20 years and 39.4% more than 20 years. More than two-thirds are from state-subsidised private schools (n=56), with the rest working at the state school (n=15). Three-quarters (74.3%) teach in secondary classes, while the other 25.7% work on vocational training courses. The average teaching load is 19.58 hours per week.

Instruments

Four validated self-report tests and a questionnaire on socio-demographic and work-related variables were used in the study. We shall describe each instrument below.

Teacher Burnout Questionnaire (TBQ-R) Cuestionario de Burnout del Profesorado (CBPR) (Moreno-Jiménez, Garrosa & González, 2000) The TBQ-R is made up of three factors: Factor I (Stress and *Burnout*); Factor II

(Disorganisation) and Factor III (Problems with Bureaucracy). For this paper we have only taken into account Factor I data, composed of two sub-scales, *Role-related stress*, which looks at stress stemming from role dysfunctions, and *burnout*, which covers the process of *burnout* and each of its three dimensions, Emotional Exhaustion, Depersonalisation and Lack of Personal accomplishment. A very high internal consistency index (Cronbach's Alpha = 0.92) vouches for the instrument's reliability.

Symptoms Checklist-90-R (SCL-90-R) (Derogatis, 1977). The Spanish version of the instrument created by González de Rivera et al. (1989). The SCL-90-R is divided into nine scales assessing nine dimensions symptomatic of psychopathology: somatisation, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation and psychoticism. It also enables the calculation of three global indicators of distress. However, for the purposes of this study we will use only the Global Severity Index (GSI). Internal consistency was also found to be high in the application of the SCL-90-R (alpha = 0.96).

Beck Depression Inventory (BDI) (Beck, Rush, Shaw and Emery, 1979). We used the revised self-applied version of the inventory, adapted and translated by Vázquez and Sanz (1991). The internal consistency measure obtained was alpha = 0.78.

Teacher Irrational Beliefs Scale (TIBS), Bernard (1990). To measure irrational beliefs we employed a version of the TIBS adapted and translated into Spanish by Calvete and Villa (1997). This scale measures four types of irrational thinking in relation to teachers' tasks: absolutist thinking, exaggeration or a tendency to get things out of proportion, low frustration tolerance, and overgeneralization. The problem areas of the teachers' role included are: pressure due to lack of time and work overload; students' learning difficulties and emotional problems; handling the class; and problems with the school management. The instrument is divided up into four factors or subscales.

- *Self-Downing attitude:*

a high score on this subscale is linked to setting high standards for oneself, an exaggerated need for approval from others, and the belief that making mistakes can reduce one's value as a person.

- *Low frustration tolerance:*

a high score points to the belief that teaching should be easy and require little effort and work on the part of the teacher.

- *Attitudes towards the school organisation:*

TABLE 1
Work-related features of the sample

	Frequency	Percentage
Years of teaching experience (N = 71)		
Less than 5 years.	8	11.3 %
Between 5 and 10 years	16	22.5 %
Between 10 and 20 years	19	26.8 %
Between 20 and 30 years	16	22.5 %
More than 30 years	12	16.9 %
Type of school (N = 71)		
State	15	21.1 %
State-subsidised private	56	78.9 %
Level (N = 70)		
Compulsory Secondary	29	41.4 %
Baccalaureate	10	14.3 %
Compulsory Secondary & Baccalaureate	13	18.6 %
Intermediate Vocational Training Stage	9	12.9 %
Higher Vocational Training Stage	8	11.4 %
Vocational Training (profession in 1 year)	1	1.4 %
Weekly teaching hours (N = 71)		
Up to 20 hours	33	46.5 %
More than 20 hours	38	53.5 %

the items on this subscale are related to teachers' needs to be involved in the running of the school, i.e., that they be taken into account in decision-making, that their problems be listened to, etc.

- Authoritarian attitudes towards pupils:

a high score on this subscale implies intransigence towards the discipline problems of the pupils. They believe that they cannot stand the pupils misbehaving and that in such cases they should be severely punished.

The TIBS consists of a total of 22 items scored by means of a 5 point Likert scale (from 1 = *disagree totally* to 5 = *agree totally*). The application of this instrument on this sample also produced a good index of internal consistency ($\alpha = 0.71$).

Further, a questionnaire was drawn up to gather information about some socio-demographic and work-related teacher variables: sex, age, teaching experience, level of classes, sick leave, short-term time off work (not qualified as sick leave due to short duration) in the last school year, etc.

PROCEDURE

We contacted five schools in the Autonomous Region of Madrid to inform them of the aims of the study and to ask for their cooperation, though only three finally took up the invitation. The criteria for being included in the sample were as follows: to be working as a teacher in one of the schools and willing to take part in the research anonymously and without personal gain. The

questionnaire booklets were distributed in the schools. The booklet included the aims of the study, statements to the effect that participation would be on a voluntary and anonymous basis and that data would be treated confidentially and used for research purposes only, and instructions regarding the completion and return of the questionnaires. Once the completed questionnaires had been collected, we analysed the data using *SPSS* version 12.0 for Windows.

RESULTS

First of all, we will show the results for levels of *burnout*, role-related stress, psychopathological symptoms, depression and absenteeism in the sample (Table 2). In the CBP-R variables measured (*role-related stress* and *burnout*) the mean scores were 2.83 and 2.12, respectively (in a possible range of 1 to 5). Medium or high levels of *role-related stress* and *burnout* were found in 84.8% and 69.7% of teachers, respectively. The highest mean score (39.7%) of the three dimensions making up the *burnout* syndrome was for emotional exhaustion.

With regard to the psychological and psychosomatic symptoms, the Global Severity Index (GSI) of the SCL-90-R shows that 63.8% of the teachers had medium or high levels of symptomatology. The dimensions with the highest mean scores on the SCL-90-R were obsessive-compulsive and depression. The lowest-scoring of the nine dimensions was phobic anxiety.

Depressive symptomatology was another of the

TABLE 2
Descriptive statistics and levels of the variables: role-related stress, *burnout* and psychopathological symptoms and depression

	N	Min.	Max.	Mean	SD	Level			
						Low	Médium	High	
Role-related stress	66	1,69	4,38	2,83	,57	15,2%	53,0%	31,8%	
Burnout	66	1,11	3,89	2,12	,58	30,3%	47,0%	22,7%	
Emotional exhaustion	68	1,25	4,50	2,42	,72	27,9%	32,4%	39,7%	
Depersonalization	71	1,00	3,50	1,73	,55	29,6%	47,9%	22,5%	
Lack of personal accomplishment	68	1,00	3,71	2,03	,66	51,5%	32,4%	16,2%	
Global severity index (SCL-90-R)	69	,04	1,87	,52	,39	36,2%	31,9%	31,9%	
Somatisation	69	,00	3,33	,65	,71	30,4%	39,1%	30,4%	
Obsession-compulsion	69	,00	2,40	,73	,56	23,2%	34,8%	42,0%	
Interpersonal sensitivity	69	,00	2,22	,50	,45	26,1%	42,0%	31,9%	
Depression	69	,00	2,46	,67	,54	36,2%	37,7%	26,1%	
Anxiety	69	,00	3,00	,49	,52	40,6%	33,3%	26,1%	
Hostility	69	,00	1,50	,34	,35	21,7%	63,8%	14,5%	
Phobic anxiety	69	,00	1,57	,20	,30	47,8%	27,5%	24,6%	
Paranoid ideation	69	,00	1,83	,48	,46	39,1%	27,5%	33,3%	
Psychoticism	69	,00	1,70	,29	,35	26,1%	36,2%	37,7%	
	N	Min.	Max.	Mean	SD.	Level			
						No depression	Mild	Moderate	Severe
BDI	70	0	20	6,10	4,52	78,6%	20,0%	1,4%	0,0%

distress indicators analysed, using the BDI, can show scores from 0 to 63. It is worth noting that none of the participants had severe levels of depression, and 20% suffered from mild depression.

Absenteeism was operationalised in terms of the variables “days taken in short-term time off work in the last school year,” and “days of sick leave in the last school year.” The figures are shown below, but it must be remembered that the data come from teachers’ self-reports and not from official sources.

The number of occasional days off work which did not count as sick leave was 95 in the previous school year, an average of 1.42 days off per teacher (SD = 2.59). The total days off work was a much higher figure, 522 days in the last school year, which equals 7.35 days per teacher (SD = 30.58). There were 18 cases of full-scale sick leave in the same period, averaging out at 0.25 cases per teacher (SD = 0.60).

The most frequent causes of illness, bearing in mind that teachers were asked to exclude pregnancy and maternity leave, were ear, nose and throat problems (27.78%), followed by psychiatric issues (22.22%). Nevertheless, the latter caused the greatest number of days of sick leave, claiming 57.66% of these, followed by physical injuries, with 20.50%.

Now let us turn to a description of the irrational beliefs. The teachers in the sample presented a mean of 3.05 on the TIBS scale (the response options range from 1 to 5). Table 3 shows the descriptive statistics of the TIBS scale and the corresponding subscales. It also includes the percentage of subjects with low, medium or high levels for irrational beliefs and for each of the dimensions of the scale.

In order to calculate “low”, “medium” and “high”, the 33rd and 66th percentiles were set for this sample. Scores below the former were deemed as “low”, with “medium” representing scores between the two percentiles and “high” established as the label for those above the latter.

It is noteworthy that of these percentages, approximately

	N	Min.	Max.	Mean	SD	Level		
						Low	Medium	High
Teacher irrational beliefs (TIBS)	63	2,23	3,82	3,05	,37	38,1%	30,2%	31,7%
Self-Downing attitude	66	1,50	4,38	2,84	,55	33,3%	40,9%	25,8%
Low frustration tolerance	69	1,50	4,50	2,75	,69	43,5%	31,9%	24,6%
Attitudes towards school organisation	69	1,80	4,80	3,43	,59	40,6%	29,0%	30,4%
Authoritarian attitudes towards pupils	66	1,00	5,00	3,21	,68	40,9%	25,8%	33,3%

32% of the sample had scored high on irrational beliefs. In terms of the type of irrational belief, the percentage of teachers with a high level was highest in authoritarian attitudes towards pupils (33.3%).

As far as the correlations between the different indicators of teacher distress and teacher irrational beliefs are concerned, Table 4 shows how a large proportion of these symptoms correlate significantly and positively with the total score in irrational beliefs (TIBS). Thus, the stronger the trend towards irrational thought displayed by the teachers studied, the higher their scores in *role-related stress*, *burnout* (chiefly in the emotional exhaustion dimension), psychological or psychosomatic symptoms (GSI) and depression (BDI). The two irrational attitudes seen to be linked most strongly to the symptoms selected as teacher distress indicators are low frustration tolerance and authoritarian attitudes towards pupils.

The variables related to absenteeism also showed significant correlations with irrational beliefs. The correlation between total days off work and irrational beliefs had a Pearson *r* coefficient of 0.30 ($p < .05$). In the case of the relationship between irrational thought and days missed through sick leave, the Pearson *r* was 0.27 ($p < .05$). The number of days off work also correlated significantly and positively with irrational beliefs ($r = 0.33$; $p < .01$).

With the aim of finding out whether there are differences in our data between the teacher distress indicators in relation to *teacher irrational beliefs*, we then compared the scores of the different psychological indicators of

	Teacher irrational beliefs	Self-Downing attitude	Low frustration tolerance	Attitudes towards school organisation	Authoritarian attitudes towards pupils
Role-related stress	0.32*	0.11	0.40**	0.32**	0.16
Burnout	0.32*	0.05	0.41**	0.29*	0.37**
Emotional exhaustion	0.36**	0.16	0.42**	0.33**	0.30*
Depersonalisation	0.24	0.12	0.38**	0.09	0.27*
Lack of personal fulfilment	0.22	-0.14	0.28*	0.24	0.38**
GSI (SCL-90-R)	0.33**	0.24	0.13	0.19	0.26*
Somatisation	0.32**	0.17	0.18	0.21	0.23
Obsession-compulsion	0.24	0.22	0.10	0.20	0.12
Interpersonal sensitivity	0.19	0.30*	-0.06	0.02	0.24
Depression	0.36**	0.23	0.18	0.24*	0.28*
Anxiety	0.29*	0.19	0.29*	0.21	0.20
Hostility	0.16	0.13	0.00	0.17	0.12
Phobic anxiety	0.22	0.18	0.10	0.01	0.18
Paranoid ideation	0.24	0.21	-0.05	0.05	0.31*
Psychoticism	0.14	0.14	-0.16	0.04	0.19
BDI	0.32*	0.22	0.25*	0.17	0.13

** The correlation is significant to a level of *0.01 (bilateral).
* The correlation is significant to a level of *0.05 (bilateral).

teacher distress among the teachers with the lowest levels of irrational beliefs (below the 33rd percentile) with those obtained from the group of teachers with the highest levels (above the 66th percentile).

Figure 1 shows the mean scores in the variables measured by the CBP-R, i.e., *role-related stress*, *burnout* and its dimensions, as generated by teachers with low and high scores on the teacher irrational beliefs scale (TIBS). As the figure indicates, teachers with high levels of irrational beliefs had higher mean scores in *role-related stress* as well as in *burnout* and its dimensions. On applying the Student *t* test with the aim of comparing the means of the different groups and working out their level of significance, the differences of means were found to be significant differences for *role-related stress* ($t = 2.42$; $p = .02$), the general *burnout* index ($t = 2.31$; $p = .03$) and emotional exhaustion ($t = 2.66$; $p = .01$). The effect sizes for these three differences of means were, respectively, $d = .73$; $d = .70$ and $d = .80$, which means that the differences were of considerable magnitude.

As regards the mean scores obtained in the Global Severity Index of the SCL-90-R, these also turned out to be significantly higher among those teachers with higher TIBS. The same held for the somatisation and depression subscales (see Table 5).

Turning to the BDI scores, we can see that the mean of the group of teachers with high TIBS scores ($X_{\bar{}} = 7.90$; $DE = 4.33$) was also significantly higher ($t = 2.66$; $p = .01$) than that of teachers with low TIBS scores ($X_{\bar{}} = 4.63$; $DE = 3.98$). The order of magnitude of the difference was high ($d = .79$).

To increase our understanding of the relationship between the psychological indicators of teacher distress

and teachers' irrational beliefs, we also analysed each one of the TIBS subscales and compared the scores in these distress indicators.

With regard to "Self-Downing Attitude", although we found that the scores for the different psychological indicators of teacher distress were higher in the group with strong feelings of inadequacy than in those with weak inadequacy feelings, we could not find a significant difference.

On analysing the "low frustration tolerance" attitudes, the scores in role-related stress, *burnout* and BDI were significantly higher in the group with the lowest frustration tolerance (see Table 6). In relation to the differences of means in the three factors of *burnout* and the nine symptomatic dimensions of the SCL-90-R, we found that they were significant in emotional exhaustion, depersonalisation, lack of personal accomplishment and somatisation and anxiety (see Table 6).

As regards irrational attitudes in relation to school organisation, we did not find any significant differences in the main psychological indicators of teacher distress between the groups with high and low scores. Only in the *burnout* dimension "emotional exhaustion" was a significant difference found, in which teachers scoring high on attitudes towards school organisation also recorded a significantly higher mean ($M = 2.48$; $SD = 0.77$) than those with scores for this attitude ($M = 2.04$; $SD = 0.49$), $t = 2.29$; $p = 0.03$; $d = 0.68$.

Finally, regarding authoritarian attitudes towards pupils, we see once again that teacher distress scores were higher among those teachers with more authoritarian attitudes. Nevertheless, the differences between the groups with more and those with less authoritarian attitudes were only significant in the general *burnout* index ($t = 2.21$; $p = 0.03$) and its "lack of personal accomplishment" dimension ($t = 2.47$; $p = 0.02$) and in two SCL-90-R subscales: interpersonal sensitivity ($t = 2.11$; $p = 0.04$) and paranoid ideation ($t = 2.72$; $p = 0.01$)

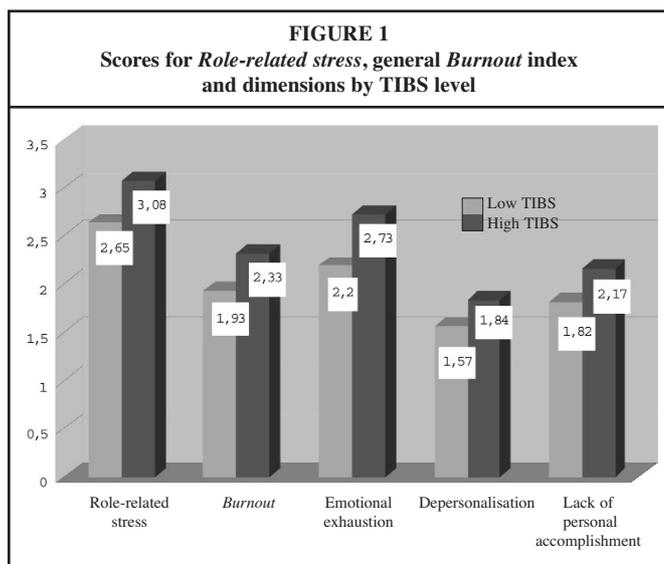


TABLE 5
Differences in the Global Severity Index (GSI) and in the somatisation and depression subscales of the SCL-90-R by Teacher Irrational Belief (TIBS) level

	TIBS	N	Mean	SD	t	p	D
GSI (SCL-90-R)	Low	24	.39	.25	2.21	.04	.71
	High	20	.66	.48			
Somatisation	Low	24	.44	.39	2.10	.05	.66
	High	20	.94	.99			
Depression	Low	24	.47	.29	2.45	.02	.77
	High	20	.88	.69			

DISCUSSION

The first aspect that stands out from the results reported here is the high level of distress evidenced by teachers in the sample (we should remember that around a third presented high levels of role-related stress and more than half had moderate levels, while approximately 23% and 47% displayed high and medium levels, respectively, of professional *burnout*, with 30% suffering from severe psychopathological or psychosomatic symptomatology, and 20% from mild depression).

The large number of working days lost in the sample data also is also striking. These results do not differ greatly from those obtained in other studies of teacher distress mentioned at the beginning of this paper (Antoniou, Polychroni and Walters, 2000; Capel, 1992; Lale, 2001; Manassero et al., 1995; Martínez-Abascal and Bornás, 1992; Rudow, 1999). The status of teaching as a risk profession can thus be confirmed, and this should serve as an alarm signal for the implementation or improvement of suitable measures of prevention and intervention in order to try to alleviate or reduce the

psychological symptomatology with which this profession is frequently associated.

The results regarding the links between the *mediating cognitive variables* and the indicators of teacher distress are especially interesting.

First of all, it is striking that *teacher irrational beliefs* correlate significantly and positively with all the teacher distress variables studied in this analysis, as well as with the psychological variables (role-related stress, *burnout*, psychopathological symptoms and depression) and with the data on absenteeism (days of sick leave, number of absences). Although the magnitude of these correlations is lower, which could indicate the involvement of other factors also related to teacher distress, it becomes clear that irrational thinking on the part of teachers is an important aspect to bear in mind when it comes to dealing with the problems of teacher distress. This is underlined by the fact that the scores were significantly higher in all the main psychological indicators among those teachers with high levels of irrational beliefs.

As regards *burnout* and its components, it can be seen that irrational beliefs are linked above all to emotional exhaustion, i.e., to that part of the *burnout* syndrome which has more to do with physical tiredness and with low and/or anxious mood. This is in line with the fact that among the SCL-90-R dimensions, irrational thinking is associated above all with somatisation, depression and to a lesser extent anxiety. We have also found links between symptoms of depression measured with the BDI and the irrational beliefs of teachers, and between role-related stress and these beliefs. These results appear coherent in relation to Ellis's RET and the role that this assigns to irrational beliefs as mediators in events and emotions such as stress, depression and anxiety.

For these reasons it is interesting to study what types of irrational beliefs are mainly linked to symptoms of stress and teacher distress and, therefore, which attitudes and beliefs should be given emphasis in interventions with teachers. Our results highlight the fundamental role of *low frustration tolerance*. The teachers in the study holding this kind of attitude are more likely to suffer higher levels of teacher distress. This type of irrational belief correlates significantly and moderately with *role-related stress*, *burnout* and emotional exhaustion, and significantly but less strongly with depersonalisation, anxiety and depression (BDI). Furthermore, we found marked differences in *role-related stress*, in *burnout* and in its three dimensions according to teachers' level of frustration tolerance, the highest mean scores being for those with high scores in this aspect (i.e. showing low

TABLE 6

Differences in role-related stress, *burnout*, psychological symptoms and depression, by level of frustration threshold

	Low frustration threshold	N	Mean	SD	t	p	d
Role-related stress	Low	30	2.63	.52	3.26	.00	1.00
	High	14	3.23	.66			
<i>Burnout</i>	Low	28	1.95	.44	3.22	.00	1.08
	High	15	2.56	.67			
Emotional exhaustion	Low	29	2.19	.60	3.78	.00	1.13
	High	16	2.98	.79			
Depersonalization	Low	30	1.56	.46	3.19	.00	.93
	High	17	2.06	.61			
Lack of Personal Accomplishment	Low	29	1.90	.55	2.50	.02	.73
	High	16	2.40	.79			
GSI (SCL-90-R)	Low	30	.48	.41	1.67	.10	.48
	High	17	.70	.51			
Somatisation	Low	30	.50	.67	2.26	.03	.65
	High	17	1.05	.99			
Anxiety	Low	30	.39	.33	2.29	.03	.75
	High	17	.85	.80			
BDI	Low	30	5.03	4.44	2.60	.01	.77
	High	17	8.82	5.40			

frustration tolerance). The scores for somatisation, anxiety and depression (BDI) were also significantly higher among teachers with the lowest frustration tolerance.

Self-Downing Attitude was the attitude which displayed the weakest link to expressions of teacher distress, correlating significantly only with interpersonal sensitivity.

Attitudes towards school organisation were also linked to some of the consequences of teacher distress, although to a lesser degree than the low frustration tolerance attitude. The significant correlations were with *role-related stress, burnout* and its emotional exhaustion dimension, depression (SCL-90-R) and the number of absences from work. Nevertheless, hardly any significant differences were found in the means of the different psychological symptoms according to the strength of attitudes towards school organisation. Only in emotional exhaustion do we find a significantly higher score among those teachers who had stronger attitudes towards school organisation.

The final type of irrational beliefs measured by the TIBS, *authoritarian attitudes towards pupils*, is significantly linked to *burnout* syndrome and its three dimensions, to the Global Severity Index of the SCL-90-R and to its symptomatic dimensions (interpersonal sensitivity and paranoid ideation), as well as to days off work. Furthermore, we find significantly higher scores in *burnout*, lack of personal accomplishment, interpersonal sensitivity and paranoid ideation in the group of teachers with strongly authoritarian attitudes towards pupils.

The results of our study regarding the association between irrational beliefs and the consequences of teacher distress coincide only partially with those obtained in the few previous analyses of the role such beliefs play in the problems associated with teacher distress. We specifically refer to research by Bernard (1988) and by Calvete and Villa (1999). As was the case in these two papers, we also found significant relationships between irrational teacher beliefs and the symptoms of stress and *burnout*. Nevertheless, our results do not match entirely with those of Bernard and of Calvete and Villa in terms of the type of beliefs most closely associated with these symptoms. Both of the aforementioned studies found that attitudes of inadequacy or self-deprecation were significantly associated with some of the symptoms of stress or *burnout*, while we have not found the same associations in our data. We do, however, agree with them in that low frustration tolerance is significantly linked to the symptoms of teacher distress.

There is no similar overlap between our results and those of Calvete and Villa in terms of authoritarian attitudes towards pupils. We found a significant correlation between this attitude and emotional exhaustion. However, while Calvete and Villa found that those teachers who scored highest in authoritarian attitudes towards pupils scored significantly higher in emotional exhaustion and in symptoms of depression, in our own data these trends did not show significance differences, perhaps owing to the smaller sample size.

As we can see, although there is growing empirical support for the link between irrational teacher beliefs and teacher distress, more studies are needed to clarify the role played by each type of irrational beliefs in relation to the different symptoms of distress, given that it is here where most discrepancies among the different studies are to be found.

Thus, and in view of our results, we believe it would be of interest to test the hypothesis that there are dimensions of teacher distress which are independent and influenced by different types of cognitive variables, such as the different types of irrational beliefs. If this were found to be the case, such a finding would make a considerable contribution to the design and adaptation of the most suitable type of treatment for each dimension of teacher distress.

ACKNOWLEDGEMENTS

This work was made possible by joint financing from the Fundación Mapfre Medicina and the Universidad Pontificia Comillas (Madrid).

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