

## Meaning in Life, Psychological Well-Being and Quality of Life in Teachers

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**Abstract:** The aim of this study was to evaluate the levels of meaning in life (MIL), psychological well-being (PWB) and quality of life (QOL) in a large sample of school teachers, and to observe to what extent the MIL could act as a moderator variable in the relation between PWB and general QOL. The study included 517 teachers from 57 public and private schools in the city of Campina Grande, Paraíba, Brazil, 174 men and 343 women (averaging 36.5 years old,  $SD = 10.34$ ). The results showed that a significant portion of professionals had negative indexes of MIL, PWB and QOL. Inferential analyses showed MIL as a predictor variable of both PWB and QOL. Moderation analysis demonstrated that the PWB and QOL showed distinct correlations for individuals with high and low levels of MIL. Reflections for future research and occupational health interventions are suggested.

**Keywords:** teachers, meaning in life, health, quality of life, moderation

## Sentido de Vida, Bem-Estar Psicológico e Qualidade de Vida em Professores Escolares

**Resumo:** O presente estudo objetivou avaliar os índices de sentido de vida (SV), de bem-estar psicológico (BEP) e de qualidade de vida (QV) em uma ampla amostra de professores escolares, e observar como o SV poderia atuar como variável moderadora da relação entre o BEP e a QV geral. Participaram do estudo 517 professores, de 57 escolas públicas e privadas da cidade de Campina Grande, Paraíba, Brasil, sendo 174 homens e 343 mulheres (idade média de 36,5 anos,  $DP = 10,34$ ). Os resultados demonstraram que uma parcela significativa de profissionais apresentou índices negativos de SV, BEP e QV. Análises inferenciais apresentaram o SV como uma variável preditora tanto de BEP quanto de QV. Análises de moderação demonstraram que o BEP e a QV geral apresentam correlações distintas para sujeitos com alto e com baixo nível de SV. Reflexões para pesquisas futuras e intervenções em saúde do trabalhador são apontadas.

**Palavras-chave:** professores, sentido de vida, saúde, qualidade de vida, moderação

## Sentido de Vida, Bienestar Psicológico y Calidad de Vida en Profesores

**Resumen:** El presente estudio tuvo como objetivo evaluar los índices de sentido de vida (SV), bienestar psicológico (BP) e calidad de vida (CV) en una amplia muestra de profesores escolares, y observar cómo el sentido de vida podría actuar como una variable moderadora de la relación entre el BP y la CV general. Participaron del estudio 517 profesores, de 57 escuelas públicas y privadas de la ciudad de Campina Grande, Paraíba, Brazil, siendo 174 hombres y 373 mujeres (promedio de 36,5 años,  $DE = 10,34$ ). Los resultados mostraron que parte significativa de los profesionales presentaron índices negativos de SV, BP y CV. Análisis inferenciales mostraron al SV como una variable predictora, tanto de BP como de CV. Análisis de moderación demostraron que BP y CV presentaron correlaciones diferentes en sujetos con altos y con bajos niveles de SV. Reflexiones para investigaciones futuras e intervenciones en salud del trabajador son señaladas.

**Palabras clave:** profesores, sentido de vida, salud, calidad de vida, moderación

Among formal professions in Brazil, teaching at primary and secondary education level figures among the professions with the higher emotional exhaustion rates for workers (Reis, Araújo, Carvalho, Barbalho, & Silva, 2006). Based on an epidemiological study, Codo (1999) indicated that 26% of Brazilian school teachers presented inappropriate emotional tension levels. More recent studies picture that these rates seem to continue in teachers'

daily reality (Carlotto, 2010, 2011; Penteadó & Pereira, 2007; Reinhold, 2006), supporting the idea launched by the International Labour Organization (Organisation Internationale du Travail [OIT], 1981) that teaching is a profession with high physical and mental risk levels.

Considering this panorama, which is not just a Brazilian reality, Brazilian and international researchers have demonstrated that the adverse conditions of teaching significantly affect teachers' rates of psychological well-being and quality of life (Kyriacou, 2003; Penteadó & Pereira, 2007; Xavier & Morais, 2007). Psychological well-being is understood as individuals' personal

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evaluation about their experiences of emotional tension, depression, anxiety, somatic symptoms, insomnia, social skills and skills to cope with adverse situations (Goldberg et al., 1997). Quality of life, in turn, is understood as “individuals’ perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns” (The WHOQOL Group, 1994, p. 17). Reduced satisfaction levels on these two indicators significantly affect the way teachers practice their functions (Gil-Monte, Carlotto, & Câmara, 2011).

The scientific literature has demonstrated that the adverse conditions of teaching, responsible for the drop in teachers’ levels of well-beings and quality of life, are distributed across different categories, including: (1) administrative (high work demand; low autonomy; low participation in the school’s administrative decisions; little time to accomplish tasks); (2) financial (low wages and needs of several jobs); (3) ergonomic (excessive noise in the classroom; low luminosity; inappropriate quantity of students per classroom) and (4) social (lack of social prestige; violence; drugs in the school context; deteriorated relation with colleagues), among others (Carlotto, 2011; Nunes Sobrinho, 2006). It is important to highlight, however, that the way the job characteristics influence professionals varies according to both the context and the person (Sadir, Bignotto, & Lipp, 2010). The impact of occupational stressors on the subjects partially differs because of the possibility to use psychosocial resources, which favor strategies to cope with adverse situations (Lazarus & Folkman, 1984; Margis, Picon, Cosner, & Silveira, 2003). Among these resources, the meaning in life (MIL) has been considered one aspect that helps to cope with situations that are considered adverse and enhances individuals’ levels of psychological well-being and quality of life (Ho, Cheung, & Cheung, 2010).

### **Meaning in Life and its Relations with Health Aspects**

As a psychological construct, the initial theory and dissemination about the meaning in life (MIL) came from Logotherapy (Frankl, 1946/2004). Throughout his work, Frankl (1978, 2003, 1946/2004) suggested that the search for meaning was human beings’ main motivation, and that MIL serves as a fundamental component of people’s psychological and subjective well-being.

MIL can be defined as the perception of order and coherence in one’s own existence, along with the pursuit and achievement of goals, resulting in a feeling of existential accomplishment (Reker, 2000; Steger, 2009). According to Frankl (1946/2004), people fundamentally need a clear notion about the purpose of existence itself and, what is more, they need to act in the world in line with this perception, constituting a sense of existential coherence.

Ever since their first publications, the theoretical and philosophical premises of Logotherapy and Existential

Analysis have been widely discussed and empirically measured in North American and European literature. Decades of research have supported Frankl’s main assumptions, showing MIL as an important predictor of physical health (Jim & Andersen, 2007), psychological well-being and quality of life (Fillion et al., 2009; Ho et al., 2010; Melton & Schulenberg, 2008). A lack of meaning, on the other hand, has been associated with higher depression levels (Mascaro & Rosen, 2006), suicidal ideas (Edwards & Holden, 2001), drug addiction (Henrion, 2002), among others.

The functioning of MIL in people’s mental and physical health is complex. Some hypotheses suggest that, as a cognitive process, MIL is a central resource in self-regulation and self-perception, supporting the use of adaptive behaviors and offering a feeling of existential meaning. MIL by itself does not regulate behavior, but guides subjects to be able to overcome stressful events more easily through the use of their psychosocial resources, making decisions that are in accordance with an organized personal value system (McKnight & Kashdan, 2009).

Despite comprehensive literature that demonstrates the predictive and moderating role of MIL on people’s physical and psychological health, most of these studies center on samples of students and elderly people, while studies in occupational samples have been scarce (Halama & Bakosova, 2009; Ho et al., 2010; Mascaro & Rosen, 2005). Considering the benefits of this resource for people’s physical and psychological health, investigating MIL rates among professionals is relevant for different reasons. In general, work plays a fundamental role in the construction of subjects’ identity and can be one of the main sources of meaning and direct the being towards the feeling of existential accomplishment (Frankl, 2003). Different empirical studies suggest that this premise is consistent, demonstrating that work has been one of the main predictors of MIL in different samples and age ranges (Rosso, Dekas, & Wrzesniewski, 2010; Steger & Dik, 2009).

Another important aspect that needs to be taken into account in occupational studies is the fact that subjects with higher MIL rates tend to show higher levels of well-being at work and greater professional commitment (De Klerk, 2005). In addition, as a protective resource, MIL supports the appropriate use of coping and stress management resources, protecting subjects against negative events and feelings experienced at work (Bonebright, Clay, & Ankenmann, 2000; Mascaro & Rosen, 2006). Considering teachers as a professional group that generally displays high levels of emotional exhaustion, the aim of this study was to evaluate MIL, psychological well-being (PWB) and quality of life (QOL) rates in a comprehensive sample of school teachers, as well as to observe how MIL can act as a moderating variable of the relation between PWB and general QOL.

## Method

### Participants

Participants were 517 teachers from 57 public and private schools in Campina Grande, Paraíba, Brazil. Like the schools, the teachers were chosen through a non-randomized convenience sample. The researchers aimed for homogeneous data in terms of the variables 'gender', 'teaching level' (first three years of primary education, last three years of primary education and secondary education) and 'type of school' (public and private). Considering the total sample, 252 teachers were interviewed at (state and municipal) public schools and 265 at private schools. In addition, 168 professionals taught in the first three years of primary education, 173 in the last three years and 176 in secondary education. As for the biosociodemographic sample characteristics, 66.3% are female, 54.9% married and 50.5% gain between one and three minimum wages. Ages ranged between 18 and 65 years ( $M = 36.52$ ;  $SD = 10.46$ ).

### Instruments

1) *Quality of Life Questionnaire* (WHOQOL-Bref). The factor structure of the WHOQOL-Bref consists of four domains – physical, psychological, social and environmental – and a general factor (general quality of life). The physical domain refers to organic health aspects, collecting information about pain and discomfort, energy and fatigue; mobility; need for medical care etc. The psychological domain relates to positive affect, memory, concentration, self-esteem, body image and appearance. The social domain investigates interpersonal relations and social support networks. The environmental domain addresses questions related to physical safety and protection, financial resources, transportation, housing, among others. The general factor is a measure that covers satisfaction with health and quality of life as a whole. The instrument consists of 26 five-point Likert-style items in four distinct measures: intensity (nothing/extremely), ability (nothing/completely), frequency (never/always) and evaluation (very dissatisfied/very satisfied; very bad/very good). In the present study, the WHOQOL-Bref revealed Bartlett sphericity test results  $\chi^2 = 4365.973$  and  $KMO = 0.92$  ( $p < 0.001$ ). All scale domains and the 'general quality of life' factor showed satisfactory internal consistency levels (physical domain:  $\alpha = 0.80$ ; psychological domain:  $\alpha = 0.75$ ; social domain:  $\alpha = 0.70$ ; environmental domain:  $\alpha = 0.75$ ; general quality of life:  $\alpha = 0.90$ ).

2) 12-item *General Health Questionnaire* (GHQ-12). The GHQ-12 (Sarriera, Schwarcz, & Câmara, 1996) is a short version of the original General Health Questionnaire (Goldberg, 1972). The short version consists of 12 items, using a four-point Likert-style frequency scale (more than common; much less than common), aimed at evaluating levels of psychological well-being. In this study, the GHQ-12

revealed Bartlett sphericity test results  $\chi^2 = 1568.645$  and  $KMO = 0.86$  ( $p < 0.001$ ). As the global scale score was of interest, which assesses the level of psychological well-being, the one-dimensional version of the instrument was used (Borges & Argolo, 2002). The factor, comprising the 12 questionnaire items, was called 'psychological well-being' (PWB) and showed satisfactory internal consistency levels ( $\alpha = 0.82$ ).

3) *Purpose in Life Test* (PIL-Test-12). The PIL-Test, originally developed by Crumbaugh and Maholick (1964), is aimed at measuring subjects' level of MIL. The version used in this study is an adaptation of the original instrument, which reduced the scale from 20 to 12 items (Aquino, 2009). The questionnaire uses a Likert scale ranging from 1 (I completely disagree) to 7 (I completely agree). The KMO index (0.86) and Bartlett's Sphericity Test ( $\chi^2 = 1320.883$ ,  $p < 0.001$ ) showed satisfactory results. For the aims of this study, the single-factor version of the scale was used, which evaluated the global MIL score (Aquino, 2009). The factor, called 'meaning in life', included all instrument items and demonstrated satisfactory internal consistency ( $\alpha = 0.82$ ).

4) *Sociodemographic questionnaire*. This instrument was aimed at surveying sociodemographic information, including age, gender, marital status, education level, hour load, teaching level, among others.

### Procedure

**Data collection.** Initially, the school principals were contacted to obtain their consent with the teachers' participation. On prescheduled dates, the teachers at the schools visited received explanations about the project objectives, as well as the Informed Consent Form and the study questionnaires. The schools provided space for any teachers who accepted to participate to answer the questionnaires.

**Data analysis.** For data processing, Predictive Analysis Software (PASW) version 19 was used. Initially, descriptive analyses of frequency distributions and central trend measures were calculated (mean, median and standard deviation). Then, the subjects were classified in different groups (low, intermediary and high score) according to their scores on the variables 'quality of life' (QOL), 'meaning in life' (MIL) and 'psychological well-being' (PWB). Standard deviations (SD) and medians were used to classify the subjects in the groups. Subjects with scores equal to or lower than one SD below the median were included in the 'low score' group; subjects with scores between one SD below and one SD above the median were considered 'intermediary'; and subjects with scores equal to or higher than one SD above the median were ranked in the 'high score' group (MacCalum, Zhang, Preacher, & Rucker, 2002). The higher the score on each scale, the more positive the evaluated indices were.

Non-parametric Mann-Whitney and Kruskal-Wallis tests were used to evaluate the differences in MIL, PWB and

general QOL levels with regard to gender, type of school the teacher teaches at (public and/or private) and different teaching levels (first three years of primary education, last three years of primary education and secondary education). Non-parametric tests were chosen instead of parametric tests due to the non-normality of data, evaluated using Kolmogorov-Smirnov and Shapiro-Wilk's tests.

The relations between MIL and QOL and between MIL and PWB were evaluated. Six simple linear regressions were conducted, using the general factor of the PIL-Test-12 'meaning in life' as a predictor, and the five domains of the WHOQOL-Bref and the 'psychological well-being' factor of the GHQ-12 as dependent variables. Finally, to evaluate the moderating role of MIL in the relation between general QOL and PWB, moderation analyses were used, as suggested by Baron and Kenny (1986). Thus, a two-step hierarchical regression was developed: Initially, the prediction of PWB (independent variable, IV) and MIL (moderating variable, MOD) in general QOL (dependent variable, DV) was verified. In this phase, the variables were centralized (scores transformed into Z value) to minimize multicollinearity problems of the data (Aguinis, 1995). Then, an interaction variable was created (product of the

independent variable and moderating variable, PWB and MIL) to evaluate its prediction in general QOL. Finally, two simple linear regressions between PWB (IV) and general QOL (DV) were developed for each MIL group (high MIL and low MIL).

**Ethical Considerations**

This study received a positive opinion from the Research Ethics Committee at *Universidade Estadual da Paraíba* (UEPB) (protocol number: 0374.0.133.000-07).

**Results**

The results found for each of the scales used are described in Table 1. Descriptive statistics for the PIL-Test-12 demonstrate that 18.6% of the teachers obtained low MIL rates. On the GHQ-12, 12.8% of the teachers scored low on PWB. For QOL descriptive statistics demonstrated that 17.4% scored low on the physical domain; 18.4% on the psychological domain; 16.6% on the social domain and 13.2% on the environmental domain. For 'general quality of life', this percentage increased to 20.3% (Table 1).

Table 1  
Scores Obtained on Meaning in Life, Psychological Well-Being and Quality of Life Indicators

PIL-Test-12 (Scale from 1 to 7 points)							
Factor	N	Mean	Median	SD	Frequency of Participants per Interval n (%)		
					$x \leq -1SD$	$-1SD < x < +1SD$	$x \geq +1SD$
Meaning in Life	517	5.80	6.00	0.78	96 (18.6%)	389 (75.2%)	32 (6.2%)
GHQ-12 (Scales from 1 to 4 points)							
Factor	N	Mean	Median	SD	Frequency of Participants per Interval n (%)		
					$x \leq -1DP$	$-1DP < x < +1DP$	$x \geq +1DP$
Psychological Well-Being	517	2.86	2.83	0.52	66 (12.8%)	359 (69.4%)	92 (17.8%)
WHOQOL-Bref (Scale from 0 to 100 points)							
Factors	N	Mean	Median	SD	Frequency of Participants per Interval n (%)		
					$x \leq -1SD$	$-1SD < x < +1SD$	$x \geq +1SD$
QOL Physical	517	69.3	71.4	14.7	90 (17.4%)	377 (72.9%)	50 (9.7%)
QOL Psycholog.	517	69.5	70.8	13.9	95 (18.4%)	359 (69.4%)	63 (12.2%)
QOL Social	517	69.9	75.0	18.6	86 (16.6%)	392 (75.8%)	39 (7.5%)
QOL Environm.	517	54.5	54.5	14.2	68 (13.2%)	358 (69.2%)	91 (17.6%)
QOL General	517	74.5	80.0	13.5	105 (20.3%)	393 (76.0%)	19 (3.70%)

Note. PIL-Test-12 = Purpose in Life Test. QSG-12 = 12-item General Health Questionnaire. WHOQOL-Bref = Quality of Life Questionnaire. QV = Quality of life.

After analyzing descriptive statistics for the scales, significant differences between QOL, PWB and MIL scores were analyzed with regard to gender, type of school the teacher teaches at (public and/or private), as well as different teaching levels (first three years of primary education, last three years of primary education and secondary education). No significant differences were found for any of the indicators.

**Meaning in Life and its Relations with Psychological Well-Being and Quality of Life**

To evaluate the relations between MIL and PWB and MIL and QOL, six simple linear regressions were developed, with meaning in life as the independent variable. The meaning in life served as the predictive variable for all indicators assessed, with an effect size ( $r^2$ ) ranging between

23% and 51% (Table 2). The data demonstrate that, for the WHOQOL-Bref indicators, MIL explained 27% of variation in the physical domain; 51% in the psychological domain;

25% in the social domain; 23% in the environmental domain; and 42% of general QOL. As regards the PWB rate, MIL explained 24% of its variability (Table 2).

Table 2  
Simple Linear Regressions between Meaning in Life in Quality of Life and Psychological Well-Being

		Meaning in Life (PitTest-12)					
		B <sub>0</sub> (SE)	B (SE)	r	r <sup>2</sup>	F	p
WHOQOL-Bref	Physical	1.52 (0.17)	0.39 (0.28)	0.52	0.27	187.795	< 0.001
	Psychological	0.81 (0.13)	0.51 (0.22)	0.71	0.51	530.069	< 0.001
	Social	1.04 (0.21)	0.47 (0.36)	0.50	0.25	170.272	< 0.001
	Environm.	1.27 (0.16)	0.35 (0.03)	0.48	0.23	157.461	< 0.001
	General QOL	1.23 (0.12)	0.41 (0.02)	0.65	0.42	379.514	< 0.001
GHQ-12	PWB	0.97 (0.15)	0.33 (0.02)	0.49	0.24	165.180	< 0.001

Note. SE = Standard Error. QSG-12 = 12-item General Health Questionnaire. WHOQOL-Bref = Quality of Life Questionnaire. QV = Quality of life. PWB = Psychological well-being. P-value for all indicators in the regression model (B<sub>0</sub>; r; r<sup>2</sup>; and F).

Considering the relation between general QOL and PWB ( $\beta = 0.45$ ,  $t(516) = 11.38$ ,  $p < 0.001$ ;  $r^2 = 0.20$ ), it was aimed to evaluate whether MIL could moderate this relation. Therefore, the significance of the linear regression lines between general QOL and PWB for subjects with low MIL and high MIL was analyzed. First, a two-step hierarchical regression was developed. In the first step, general QOL was used as the dependent variable (DV); PWB as the independent variable (IV) and MIL as the moderating variable (MOD), the latter two centralized (Aguinis, 1995). In the second step, the interaction between PWB and MIL was included, that is, an interaction term was created, multiplying PWB by MIL.

Both PWB ( $\beta = 0.33$ ,  $t[516] = 7.53$ ,  $p < 0.001$ ) and MIL ( $\beta = 0.21$ ,  $t(516) = 4.70$ ,  $p < 0.001$ ) served as predictors of general QOL. What is more important, the interaction between PWB and MIL also served as a significant predictor of general QOL ( $\beta = -0.08$ ,  $t[516] = 1.99$ ,  $p < 0.05$ ), suggesting a moderating effect of MIL on the relation between PWB and general QOL. To verify the sense of this moderation, the MIL variable was divided in two categories – high and low – based on one SD above and one SD below the median (Table 1). Then, a simple linear regression was developed for each group (High MIL and Low MIL). The results demonstrated that the relation between PWB and general QOL was significant for teachers with low MIL ( $\beta = 0.51$ ,  $t[95] = 5.753$ ,  $p < 0.001$ ). On the opposite, the same relation was not significant for teachers with high MIL, ( $\beta = 0.17$ ,  $t[31] = 0.927$ ,  $p > 0.35$ ) (Figure 1). These results demonstrate that MIL completely moderated the relation between PWB and general QOL.

Teachers in the ‘High MIL’ group scored significantly higher on all WHOQOL-Bref domains (physical:  $U = 184.00$ ,  $r = -0.66$ ,  $p < 0.001$ ; psychological:  $U = 33.00$ ,  $r = -0.73$ ,  $p < 0.001$ ; social:  $U = 402.00$ ,  $r = -0.55$ ,  $p < 0.001$ ; environmental:  $U = 256.50$ ,  $r = -0.62$ ,  $p < 0.001$ ; general

QOL:  $U = 476.500$ ,  $r = -0.53$ ,  $p < 0.001$ ) and on the general ‘PWB’ factor of the GHQ-12 ( $U = 376.50$ ,  $r = -0.56$ ,  $p < 0.001$ ), according to the Mann-Whitney tests.

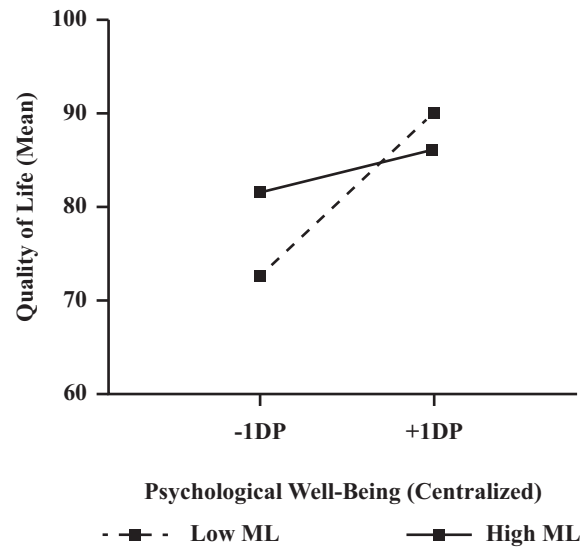


Figure 1. Moderating Effect of Meaning in Life on the Relation between Psychological Well-Being and General Quality of Life (Quality of Life (Mean), Psychological Well-Being (Centralized), Low MIL, High MIL, -1SD, +1SD)

## Discussion

The descriptive statistics presented for each of the constructs demonstrated that most teachers obtained positive MIL, PWB and QOL rates. In addition, an important part scored negatively on the same indicators, with 18.6% revealing negative scores on MIL, 12.8% on PWB and 20.3% on general QOL.

Specifically with regard to MIL rates, the data found here do not permit comparisons with national studies, as no publications exist in the area in which this construct was evaluated in teachers, nor in other professional categories. Nevertheless, a considerable number of the teachers do not feel themselves existentially accomplished, which probably affects the execution of their work (Clark, 1995; De Klerk, 2005).

Considering the low PWB levels, some authors have demonstrated that this variable is strongly related with subjects' willingness to face challenges in life, influencing the way they respond to personal and social demands (Keyes, Shmotkin, & Ryff, 2002). As the GHQ-12 evaluates psychological well-being through self-efficacy, anxiety and depression indicators, this significant part of the professionals may be suffering from reduced ability to cope with the difficulties and challenges of the school environment.

As regard the QOL scores found in this study, these are in line with other Brazilian studies, undertaken in different cities in the Northeast, Southeast and South of the country, in which the mean scores (and their respective SD) on each of the indicators were very similar (Fernandes & Rocha, 2009; Penteado & Pereira, 2007; Xavier & Morais, 2007). Considering all scores, on average, one in every six teachers evaluated displays deterioration on at least one important indicator of well-being. Once again, the combination of these indicators points towards the need to take a close look at teachers' health all over Brazil. This becomes even more explicit when considering that these scores are even higher when including teachers who were on a leave of absence due to health problems, and therefore did not participate in the studies reported.

Studying and elaborating preventive and protective strategies for teachers' health is both an individual and social concern, as teachers with lower levels of psychological well-being will also display a significant deficit in terms of job productivity, which directly influences the quality of education (Damásio, Silva, Melo, & Aquino, 2010; Gil-Monte et al., 2011).

As regard the relation between MIL, PWB and QOL scores and sociodemographic variables (gender, type of institution and teaching level), no significant differences were found in any of the groups. Considering the relation between gender and health/disease levels in teachers, these results are not clear yet in the Brazilian literature. Studies that evaluated positive aspects in teachers are scarce. With regard to the evaluation of occupational psychopathology, however, studies have demonstrated inconsistent results related to gender differences. Silva, Damásio and Melo (2009), in line with the study by Rossa (2004), for example, found no significant differences in teachers' perceived stress rates according to gender. As for burnout rates, some studies found significant differences between men and women, with higher burnout levels among women when compared to men (Carlotto, 2011; Carlotto & Moraes, 2010; Rossa, 2004). As

the teachers' occupational psychopathology, PWB, QOL and MIL variables are somehow related to the particular aspects of the work environment, the cultural, social and political context and participants' personal characteristics (Chakur, 2005), this kind of discrepancies can be considered legitimate and should not be understood as empirical inconsistencies (Grayson & Alvarez, 2008; Silva & Carlotto, 2003).

With regard to the type of school (public or private) and teaching level (first three years of primary education, last three years of primary education and secondary education), no significant differences were found either in relation to MIL, PWB and QOL scores in this sample. In general, public schools and more advanced education levels in Brazil tend to be more favorable to the appearance of psychopathological indicators in teachers (Carlotto, 2010, 2011). This is mainly due to the fact that both public schools and more advanced education levels in general present more stressors (Carlotto & Moraes, 2010; Lopes & Pontes, 2007). In this study, however, the obtained results reveal limitations, as most teachers work in both public and private institutions simultaneously and in more than one teaching level, so that they cannot be correctly classified.

### **Meaning in Life and its Relations with Psychological Well-Being and Quality of Life**

Initially, simple linear regressions were developed to evaluate the role of the MIL construct in PWB and QOL indicators. The results found are in line with international literature, which highlights the role of MIL as an important indicator of positive psychological functioning (Ho et al., 2010; Nakamura & Csikzentmihalyi, 2003), and as an important variable for a satisfactory life (Scollon & King, 2004; Steger, Oishi, & Kesebir, 2011).

Considering the relations between MIL, PWB and QOL, the analysis was focused on the extent to which MIL could act as a mediating variable of the relation between PWB and general QOL. The results demonstrated that MIL served as a moderating variable of the relation between the teachers' PWB and general QOL. In addition, teachers with higher MIL levels displayed significantly higher scores in all QOL and PWB domains.

The moderation analysis suggest that teachers with low MIL rates consider PWB as a fundamental source of general QOL. For subjects with high MIL rates, on the other hand, PWB did not act as a determinant variable in general QOL levels. As people with high MIL rates show higher degrees of satisfaction with different spheres of their lives, one specific facet (in this case PWB) does not play a determinant role in general QOL evaluation, which involves satisfaction with a range of other aspects, like the environmental context, social relations and physical health.

These results support some international studies, which have demonstrated that MIL seems to be a cognitive phenomenon (perceived existential accomplishment) that positively affects motivational (search and concretization

of personal objectives) and emotional aspects (higher levels of positive affect) throughout the life span (Halama & Bakosova, 2009), in healthy life situations as well as in situations of psychological suffering (McKnight & Kashdan, 2009). Hence, MIL seems to act in two ways: as a predictive variable of higher PWB and QOL scores and as protective resource, making subjects more able to present satisfaction with their QOL, even when their PWB scores are not high.

According to Mascaro and Rosen (2006), MIL is capable of resignifying adverse situations, acting as a buffer by modifying the perception and/or meaning of stressful events (Halama & Bakosova, 2009; Mascaro & Rosen, 2006) during the evaluation phase (Lazarus & Folkman, 1984), reducing or eliminating their impact. Also, teachers with higher MIL rates may also perceive life more optimistically. As the meaning in life is positively related with constructs like faith, love, happiness, optimism and hope (Ho et al., 2010; Melton & Schulenberg, 2008; Steger, 2009) and is considered a fundamental aspect in the resilience process (Schulenberg & Melton, 2010), the presence of this resource seems to optimize teachers' satisfaction with different aspects of their lives.

Considering the role of MIL as a predictive and moderating variable of QOL and PWB, interventions based on the theoretical premises of Logotherapy, aiming to raise teachers' awareness about existential aspects, can be a powerful tool to address aspects of these professionals' health. International literature demonstrates that MIL development strategies are plausible, and that their benefits can be perceived in different spheres. Fillion et al. (2009) for example developed a psychoeducative intervention based on Logotherapy in a group of nurses, aiming to help these professionals to develop the search for existential meaning. Indirectly, the aim was to further their satisfaction with work and their QOL, as well as to reduce participants' burnout rates. In that study, qualitative assessments demonstrated that the intervention was potentially significant. Nevertheless, the authors felt the need for a more thorough assessment of the process and impact of the intervention. Clark (1995) presents a similar proposal, discussing how interventions based on the theme 'meaning in life' can be used to reduce occupational stress and enhance workers' self-efficacy at different corporate levels. Devising this kind of interventions for teachers who tend to live under constant pressure can be an effective alternative to improve these professionals' health conditions.

This study presents some limitations that need to be highlighted. First, the participants are part of a non-randomized sample, which limits the conclusions and generalization of the findings. The impossibility of appropriately classifying the teachers into professionals from public and/or private schools and with regard to education levels also entailed limitations for the interpretation of the results. For future studies, as a suggestion, professionals could respond in which school type and at what teaching

level they teach, instead of suggesting a self-classification in only one category. As for the instruments used, it is important to highlight that, although these measures are widely used, with appropriate psychometric properties, these are generic meaning in life, psychological well-being and quality of life instruments. Occupational measures that evaluate well-being or quality of life at work for example could provide more precise information about the impact of teaching on these professionals' levels of well-being. As the measures are generic, the extent to which teaching alone is influencing the meaning in life, psychological well-being and quality of life levels in the study sample is unknown. Finally, for future researches, an evaluation of what aspects are related to the presence or absence of meaning in life in the study population (the subjects' sources of meaning) would be enriching, as this information would facilitate the execution of interventions aimed at potentiating subjects' humanistic-existential aspects.

### Final Considerations

This study was aimed at evaluating the MIL, PWB and QOL rates in a large sample of teachers, and at observing how MIL could act as a moderating variable in the relation between PWB and general QOL. Descriptive statistics demonstrate that an important part of the teachers obtained negative scores on all constructs evaluated. These data have been replicated for at least two decades in different Brazilian states, which underlines the need to consider public health policies for these professionals.

The results also demonstrated that MIL served as a predictive variable of PWB and QOL, and also as a moderating variable of the relation between the latter two variables. The interaction found suggests that, if the MIL rates were lower, professionals would display worse PWB and QOL rates. As presented throughout this study, interventions focused on existential aspects of this professional class can be an effective strategy to optimize PWB and QOL indicators. In Brazil, however, the emphasis put on the MIL construct and other positive personal indicators has been very scarce so far. Therefore, the need to understand the main personal aspects that can serve as health protection factors for these workers is highlighted, with a view to devising preventive and protective strategies based on each subject's abilities.

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