

Quality of Working Life in Public Higher Education Institutions: the perception of Brazilian and Canadian professors

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Abstract

How do compare the quality of working life (QWL) for professors working in public universities in an emerging country like Brazil with the one of professors working in a developed country like Canada? This survey is aiming at assessing the QWL for Faculty working in these countries and testing for their differences. The sample consists of 354 Brazilian professors and 317 Canadian professors. The data were collected through an on-line questionnaire assessing the following QWL indicators: meaningfulness of work and at work, psychological well-being and distress, work-related stress, presenteeism, affective and continuance commitment towards university, work engagement and work-life balance. Differences were found for the meaningfulness at work, work-related stress, affective and continuance commitment as well as for work-life balance, although the size effects were small. Brazilian professors seem to find more meaningfulness at work and be more affectively committed to their universities than do their Canadian colleagues.

Keywords: QWL, meaningfulness of work, meaningfulness at work, work-life balance, commitment, engagement, work stress, and faculty.

1. Introduction

As societies are becoming more and more connected through virtual networks, alliances and globalization, education is becoming crucial for the development of a country, especially higher education, because it will pave the way for future jobs. In the meantime, the development of universities is facing financial and demographic challenges. First, the financing of graduate education and research is limited by the ability of governments to invest. Second, the number of candidates for faculty positions is not sufficient to fill up job offers in certain domains at the moment, because of better alternatives and more interesting salaries. To overcome these obstacles, university administrators may offer a healthy and stimulating work environment, in other words, a better quality of working life (QWL), in order to compensate for a lack of financial resources or to attract the best candidates.

Ketchum and Trist (1992) defined the concept of «quality of working life» as the general state of well-being in the workplace. It does not figure in dollars, but in quality indicators, which can be assessed by various indicators such as high psychological well-being, low psychological distress, high organizational commitment and high work-life balance.

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As little is known about the QWL of Faculty, this paper focuses the quality of working life in public universities in Brazil and Canada. Thus, we aim to analyze the perception of university professors towards quality of working life using the indicators of QWL, and to determine the main differences regarding the indicators of QWL in these two countries.

2. Theoretic Background

The term "Quality of Working Life" was first introduced at an international conference held at Arden House in 1972, by Louis Davis. The communications that were presented then were published in two volumes (Davis & Chermis, 1975). This conference literally launched a whole field of research in job design referred to as Socio-Technical System Design (STSD). QWL is now a complex concept which combines two major aspects: the factors – determinants of QWL - and the indicators – components of QWL.

For example, Boisvert (1977) published an analysis of the QWL with 15 dimensions of QWL: control or autonomy at work, ability to exercise judgment, the importance of decisions, opportunities for learning, use of skills, control over the performance criteria, the challenges presented in the work, the variety of tasks, interaction with colleagues, recognition, pride of accomplishment, the job contribution to the objectives of the organization, the perception of a desirable future and participation in decision-making. This list presents different dimensions that are either factors, such as interaction with colleagues, or indicators, like pride of accomplishment.

Levine (1983) published a measure developed using Delphi's method in a representative sample of 70 employees. Six criteria were identified with this method: respect and confidence of managers to employees, variety of tasks, challenges in the work, fair promotions, work-life balance and self-esteem. Again, in this list, there are QWL factors such as the variety of tasks and QWL indicators such as work-life balance.

More recently, Royuela, Lopez-Tamayo and Surinach (2008) published an article on the measurement of quality of working life and in particular, they compared the definitions of this concept for academics and for the European Commission. They identified 10 dimensions describing QWL: intrinsic value of work, skills development and career, gender equality, health and safety, inclusion and access to the labor market, work organization and work-life balance, social dialogue and employees' engagement, diversity and non-discrimination, and overall performance. Here again, there are factors such as gender equality and indicators such as the intrinsic value of work. In their book, Ketchum and Trist (1992) defined the main indicators of QWL. There are the following: work meaningfulness, sense of belonging and commitment, sense of dignity and self-achievement at work and work-life balance. These indicators are quite distinct and parsimonious, and coherent with the work done by previous researchers in this field. For this reason, they were chosen for the purpose of the present survey.

As it was previously explained in Vilas Boas and Morin (2013a, 2013b), these four indicators were operationalized with the following criteria. Work meaningfulness were assessed through the meaningful OF work and the meaningful AT work, since one can have a meaningful work in a meaningless working environment or a meaningless work in a meaningful working environment. The sense of dignity and self-achievement at work were assessed with three criteria, one positive, that is psychological wellbeing (PWB) and two negative, psychological distress and presenteeism. The sense of belonging and commitment were assessed with two related but different constructs: organizational commitment (the sense of belonging to the organization, one being positive, affective commitment, the other being negative, continuance commitment) and work engagement (the sense of commitment to one's work). Lastly, work-life balance was operationalized directly with a scale assessing the tension between work and private activities.

2.1 Work meaningfulness

According to Wrzesniewski, Dutton and Debebe (2003), a meaningful work refers to the understanding that employees have about what they do at work and the importance they give to their own work. Pratt and Ashforth (2003) argued that there is a difference between the meaning OF work and the meaning AT work, the first one referring to the roles and the tasks an individual is performing in his job while the second is referring to the relations and the conditions the individual has while performing his duties at work. Indeed, in her surveys in 4 organizations, Morin (2008) found that workers were making a difference between work meaningfulness and work environment meaningfulness, the first being associated with the work itself, its characteristics, and the second, to the relations the person has with his/her colleagues and the management.

2.2 Psychological well-being, psychological distress and presenteeism

The sense of dignity and self-achievement, presented by Ketchum and Trist (1992), can be associated with the concept of psychological well-being (PWB). In fact, the main components of PWB are: feeling of self-achievement, self-esteem and sense of balance. Moreover, Massé et al. (1998) demonstrated that psychological well-being and psychological distress are different, but complementary states of mental health. Veit and Ware (1983) made the same observation.

In this time of insecurity and social pressure, presenteeism has become a criterion of QWL (Johns, 2010). It is defined as attending work while being not in condition to perform one's duties. Presenteeism is more costly than absenteeism because of its impacts on the quality of relationships and performance (Johns, 2010). If absenteeism causes many headaches for Canadian executives, it would be rather presenteeism which causes headaches for Brazilian executives, given the job insecurity that is experienced in Brazil in the beginning of the millennium (Virtanen, Vahtera, Nakari, Pentii & Kivimäki, 2004). For this reason, this indicator was also measured.

2.3 Work engagement and organizational commitment

Commitment or engagement reflects the strength of the bond and the investments one person makes on his work (ie, work engagement) or her organization (ie, organizational commitment).

Since 1987, organizational commitment as a construct is mainly associated with the proposition of Meyer and Allen. These researchers have differentiated three types of commitment: affective commitment - the person is committed to the organization, she keeps her job because she wants to; continuance commitment - the person continues to work in the organization because she has no alternative or because she has more to lose quitting her job than keeping it; and normative commitment - the person keeps her job because she feels she has a moral duty to others (clients, colleagues or others) (Meyer & Allen, 1991).

Recently, Schaufeli and Bakker (2004) developed the concept of work engagement which reflects the investment of a person's work, characterized by vitality that is given to perform the job, and the attention and the dedication he gives towards his work. According to these researchers, work engagement should be the opposite state of job burnout (Schaufeli, Salanova, González-romá & Bakker, 2002).

2.4 Work-life balance

According to Schneewind and Kupsch (2006), the research about work-life balance was marked, since the beginning of 1980, by the determination of the sources of imbalance essentially associated with the job organization or staff management. Grzywacz and Carlson (2007) noted that the direction of the researches in this area changed early 1990s. It is increasingly considered that work-life balance results from both the exchange and the negotiation of expectations between the individual and the employer. For Christian and Letourneau (2010), the impacts of work-family conflict on employees' mental health are significant.

Based on what was presented about the indicators of QWL, this paper will analyze how Brazilian and Canadian professors evaluate these indicators. Since it is the first study on this topic, to our knowledge, it is difficult to make hypotheses at this time. The study presented here is for this reason exploratory.

3. Methodology

To determine whether there were differences between quality of working life as perceived by Brazilian and Canadian professors, we invited professors from three federal universities in Minas Gerais – Brazil, and three provincial universities in Quebec – Canada, to answer an electronic questionnaire. The questionnaire was sent to:

- . 625 professors of the Federal University of A (UFA);
- . 378 professors of the Federal University of B (UFB);
- . 995 professors of the Federal University of C (UFC);
- . 1058 professors of the University du Quebec à A (UQA);
- . 414 professors of the University du Quebec à B (UQB); and
- . 207 professors of the University du Quebec à C (UQC).

The questionnaires were sent through Survey Monkey in the first semester of 2013. In all, 671 professors completed the questionnaire, 130 UFA (20.4% response rate), 75 UFB (19.8% response rate),

149 UFC (14.9% response rate), 196 of UQA (18.4% response rate), 73 UQB (17.4% response rate) and 48 UQC (23.2% response rate). The returning rate of the questionnaires were low in each university, for this reason, it is hard to perform separate analysis by university, or even by department. But, regarding the total of questionnaires in each country, we have enough data to make the comparative analyses. Among them, 312 were women and 359 were men.

There is a significant difference between the distributions of gender in Brazil compared with Canada. In Brazil, there were 133 women and 221 men while in Canada, there were 179 women and 138 men. So, the sample in Brazil has a gender bias in favor of men.

The professors who volunteered to answer the survey were in average 45.03 years old (SD 10.427). There is a significant difference in the age of the respondents between Brazilians and Canadians ($t = -6.512$, $df = 669$, $p < .000$). In fact, Brazilians ($N = 354$) average age is 42.63 years (SD 9.967) and Canadians ($N = 317$) average age is 47.72 years (SD 10.286). In other words, Brazilian professors who answered the survey were younger than the Canadians. This does not necessarily mean though that the Brazilian professors are in general younger than the Canadians, since we do not have the demographic data for the whole population of professors in both countries.

In this sample, 17.4% of professors have master degree, 70.8%, doctorate degree and 11.8%, post-doctoral degree. As for their civil status, 15.4% were single, 77.2% were married or live with a partner, 6.7% were either separated or divorced and 0.6% was widowed. Among the respondents of both countries, 65.3% have children and the majority of them has 1 child (20%), 2 children (30.8%) and 3 children (11.6%).

The questionnaire was designed to assess the quality of working life for university professors. More specifically, it includes scales that measure the following indicators: meaningfulness of work and meaningfulness at work, psychological well-being and psychological distress (Veit & Ware, 1983), work-related stress (Parker & DeCotiis, 1983), presenteeism, affective commitment and continuance commitment (Meyer & Allen, 1984), work engagement (Schaufeli, Bakker & Salanova, 2006) and work-life balance (Carlson Grzywacz & Zivnuska, 2009). Because this survey aims at assessing sensitive indicators such as the professors' mental health and their commitment to the university, events that have marked their history were controlled. They were asked to answer by "yes" or "no" or "not applicable" if events such as the loss of a loved one, illness and job loss had occurred on their lives. The scale of Dohrenwend (1973) was used.

Similarly, it is important to control for the bias of conformity or social desirability that can influence the way the professors answer the questions. Indeed, when we ask people to express their opinions, some are more likely than others to conform to an opinion they believe are expressed by the majority of the respondents. The scale of Loo and Loewen (2004) was chosen; it has 11 statements that could be true or false. For example: "It already happened to me of feeling outraged against people in authority even though I knew they were right."

Demographic data were also asked in order to describe the sample and to better understand the results, including: gender, civil status, age, and university degree. For each scale of the questionnaire, the principal component analysis with orthogonal rotation of factors was performed in order to reduce the observed variables to a minimum number of dimensions (or components) describing the maximum proportion of variance for each variables. The factorial structure of the scales was then tested using a principal axis analysis with orthogonal rotation. Once a clear factorial structure was found, we analyzed the internal consistency for each factor in order to assess their reliability, using Cronbach's alpha. This statistics can effectively determine the percentage of variance of error in the measurement of a factor, the acceptable level is at least 0.70. From these analyzes, the variables were finally constructed and ready to be used for further analyses.

Before testing the differences between the two groups of professors, we examined the consistency of the indicators in order to validate the QWL model we intended to use. For this purpose, correlation analyses were performed using the Pearson coefficient. We also performed linear regression analyses in order to explore the relations between the mental health's indicators (Psychological Well-Being, Psychological Distress and Presenteeism) and the work attitude's indicators (Meaningfulness of Work and Meaningfulness at Work, Affective and Continuance Commitment, Work Engagement and Work-Life Balance). Mean differences between the two groups were finally examined using the T-test procedure and size effects were calculated when significant mean differences were identified

4. Main Results

In this section, we present the main results of this comparative research. First we discuss the relationship among quality of working life indicators for professors working in a Federal University of Brazil and professors working in a Quebec University, in Canada. Then, we compare the two samples to identify the main differences between Brazilian and Canadian professors' perceptions about QWL.

4.1 The relationship among QWL's indicators

As it was previously defined, QWL is a general state of wellbeing in the workplace. If they are consistent, the indicators we assessed will be strongly correlated and in a consistent direction of the QWL. In other words, professors who perceived a high quality of working life in their university should obtained high scores for meaningfulness of work and at work, high scores for psychological wellbeing, high scores for affective commitment and work engagement and high score for work-life balance. They should also get low scores for psychological distress and presenteeism and low score for continuance commitment. Also, the intercorrelations of these indicators should be significant and in a consistent direction, for example, meaningfulness of work, psychological wellbeing and affective commitment should be positively correlated and the Pearson coefficient should be significant.

Table 1 presents the means, standard deviations, Pearson's correlation coefficients, number of items for each indicator and the index of internal consistency determined by Cronbach's alpha. As shown by the results presented in this table, the correlation coefficients are all significant and in the expected direction, showing the consistency of information that these measures present. The results for each of these indicators will now be briefly described.

4.1.1 The main constructs

There is a strong correlation - positive - between the Meaningfulness of Work and Meaningfulness at Work (0.619, $p < 0.000$). The size of the Pearson correlation coefficient means that the two indicators assess different aspect of the QWL, but they give consistent or coherent information about the latent variable they are supposed to represent, that is to say the QWL (Table 1).

Similarly, there is a strong correlation - negative - between the Psychological Well-Being and Psychological Distress (-0.730, $p < 0.000$), but the size of the Pearson coefficient is not high enough to identify one with the other indicator. Similarly, there is a correlation - negative - rather small, but significant, between Affective Commitment and Continuance Commitment (-0.135, $p < 0.000$). There is a strong correlation - positive - between Work-Related Stress and Psychological Distress (0.699, $p < 0.000$), but not high enough to confuse the two indicators. Also, there is a strong correlation - negative - between Work-Related Stress and Psychological Well-Being (-0.626, $p < 0.000$), clearly indicating that they are two different indicators that can determine the relationships between private life and work.

In addition, there is a moderate correlation - positive - between Work Engagement and Affective Commitment (0.441, $p < 0.000$), clearly indicating that they are two different forms of engagement but giving consistent information on the attitude of commitment. On the other hand, there is a weak correlation - negative - between Work Engagement and Continuance Commitment (-0.355, $p < 0.000$), clearly indicating that they are two different and opposite forms of commitment, but giving consistent information about the attitude of commitment.

There is also a strong correlation - positive - between Work-Life Balance and Psychological Well-Being (0.522, $p < 0.000$), clearly indicating that the two are consistent indicators compared to QWL. On the other hand, there is a strong correlation - negative - between Work-Life Balance and Work-Related Stress (-0.652, $p < 0.000$), indicating clearly that there are two possible ways to understand the relationship between indicators of QWL. In addition, there is a weak correlation - negative - between Work-Life Balance and Continuance Commitment (-0.201, $p < 0.000$) and a moderate correlation - positive - between Work-Life Balance and Work Engagement (0.384, $p < 0.000$), indicating clearly that when work life balance increases, continuance commitment decreases, but work engagement increases.

4.1.2 The complementary constructs

It was expected a significant positive relationship between the meaningfulness of work and the meaningfulness at work on one hand and psychological well-being, affective commitment, work engagement and work-life balance, on the other hand.

These are the results that were obtained, as shown in Table 1. It was expected to have significant negative relationship between the meaningfulness of work and the meaningfulness at work on one hand and psychological distress, presenteeism, work-related stress and continuance commitment, on the other hand. These are the results that were obtained, as shown in Table 1.

Table 1. Means, Standard deviation, Pearson correlations among QWL's indicators, scores of internal consistence and number of items (N=671).

	Means	SD		MOW	MAW	PWB	PDS	WSTS	PRES	AFFC	CONC	WENG	WLB
MOW	16.29	2.08	(Alpha)	(,818)									
			(nb items)	(3)									
MAW	15.35	2.51	r	,619	(.774)								
			Sig. (bil)	,000	(3)								
PWB	42.18	8.95	r	,421	,378	(.942)							
			Sig. (bil)	,000	,000	(12)							
PDS	19.60	8.24	r	-,368	-,358	-,730	(.950)						
			Sig. (bil)	,000	,000	,000	(17)						
WSTS	62.41	23.38	r	-,360	-,299	-,626	,699	(.929)					
			Sig. (bil)	,000	,000	,000	,000	(12)					
PRES	6.65	3.54	r	-,143	-,161	-,449	,568	,590	(.883)				
			Sig. (bil)	,000	,000	,000	,000	,000	(3)				
AFFC	31.46	6.30	r	,490	,590	,354	-,286	-,307	-,202	(.747)			
			Sig. (bil)	,000	,000	,000	,000	,000	,000	(6)			
CONC	22.41	7.94	r	-,213	-,169	-,333	,348	,376	,220	-,135	(.743)		
			Sig. (bil)	,000	,001	,000	,000	,000	,000	,000	(6)		
WENG	43.63	7.00	r	,621	,475	,580	-,550	-,463	-,267	,441	-,355	(.918)	
			Sig. (bil)	,000	,000	,000	,000	,000	,000	,000	,000	(9)	
WLB	27.97	8.53	r	,335	,211	,522	-,473	-,652	-,355	,196	-,201	,384	(.906)
			Sig. (bil)	,000	,000	,000	,000	,000	,000	,000	,000	,000	(6)

Legend: Meaningfulness of Work (MOW), Meaningfulness at Work (MAW), Psychological Well-Being (PWB), Psychological Distress (PDS), Work-Related Stress (WSTS), Presenteeism (PRES), Affective Commitment (AFFC), Continuance Commitment (CONC), Work Engagement (WENG) and Work-Life Balance (WLB)

4.1.3 QWL evaluated by the university professors

The chosen QWL indicators provided reliable information (because the internal consistency indices are greater than 0.70) and consistent information (because Pearson coefficients are significant and in the expected direction). In general, the Brazilian and Canadian professors feel they have a good quality of working life. The work itself is meaningful, they work in an environment that seems to be meaningful to them, they are psychologically well and they are engaged in their work. At first glance, it seems that this is a high quality work.

This being observed, are there significant differences between Brazilian and Canadian professors? This was our major research question and it is discussed in the sequence.

3.2. Comparison between Brazilian and Canadian professors

Do Brazilian professors assess their QWL differently from Canadian professors? To find out, the average scores on QWL's indicators were compared using t-test for independent samples. The results of 354 Brazilian professors have been compared with those of 317 Canadian professors. Table 2 presents the descriptive statistics for the two groups and the t-test for each indicator.

T-tests allowed us to find mean differences in five indicators: meaningfulness at work, work-related stress, affective commitment, continuance commitment and work-life balance. In the first study with university professors, Vilas Boas and Morin (2013a, 2013b) found mean differences for only 3 indicators: meaningfulness at work, affective commitment and continuance commitment. Since the responses of professors of two other universities – one Brazilian and the other, Canadian – were added to the data base, the results changed slightly, but in essence, the conclusion is the same: Brazilian professors perceived more QWL in their university than do the Canadian.

Table 2. Mean differences between 354 Brazilian professors and 317 Canadian professors

Indicators	Nationality	X Means	S Standard deviation	T	Ddl Degree of liberty	Sig (bi)
Meaningfulness OF work	Brazilians	16,2429	1,91395	-.670	669	.503
	Canadians	16,3502	2,22765			
Meaningfulness AT work	Brazilians	15,5706	2,17814	2.454	589.587	.016
	Canadians	15,0949	2,82683			
Psychological well-being	Brazilians	41,5647	8,61207	-1.878	669	.061
	Canadians	42,8619	9,27986			
Psychological distress	Brazilians	19,3436	7,91170	-.839	669	.402
	Canadians	19,8782	8,58952			
Work-related stress	Brazilians	60,0856	22,42726	-2.730	646.938	.007
	Canadians	64,9968	24,16444			
Presenteeism	Brazilians	6,5847	3,68211	-.537	669	.591
	Canadians	6,7319	3,37911			
Affective commitment	Brazilians	32,0339	5,74816	2.480	621.454	.013
	Canadians	30,8202	6,80905			
Continuance commitment	Brazilians	21,2910	7,16915	-3.905	619.217	.000
	Canadians	23,6625	8,55453			
Work engagement	Brazilians	43,9435	7,29990	1.237	669	.217
	Canadians	43,2744	6,63972			
Work-life balance	Brazilians	28,6158	7,81401	2.049	622.654	.041
	Canadians	27,2555	9,21960			

Since signification bilateral or p is smaller than 5% for all of these indicators, we reject the hypothesis null (Ho) that the two samples are equals, and we accept the Hypothesis alternative (Ha) that the sample of Brazilian and Canadian professors are different for these indicators. However, their effect sizes are small.

The effect size is used to determine the value of mean differences between the two groups. It is determined with the calculation of eta squared (η^2), using the formula below. The effect size for meaningfulness at work is 0.01 (small), for work-related stress is 0.01 (small), for affective commitment is 0.02 (small), for continuance commitment is 0.02 (small) and for work-life balance is 0.01 (small).

$$\eta^2 = \frac{t^2}{t^2 + (N_1 + N_2 - 2)}$$

Considering the results obtained for these two groups, it is concluded that the assessment of QWL by Brazilian professors is better than the assessment of Canadian professors. Brazilians tend to find more meaningfulness at work than Canadians. According to Virtanen et al. (2004), presenteeism could be a worry for Brazilian executives. However, in this sample of professors, the mean differences showed that Canadians presented higher scores of presenteeism (6.7319) than do Brazilians (6.5847), but the difference is not significant.

4.2.1 Work-related stress

Brazilians and Canadians seem to experience different level of work-related stress and this might explain why Brazilians tend to perceive a better quality of working life in their university. According to the results, Canadian professors reported more work-related stress (64.9968) than do Brazilian professors (60.0856) and this difference is significant, even though the size of the effect is small. As a matter of fact, it is quite possible that the job requirements in these countries are different as well as the value associated with status of the profession in the culture.

In other to explore this result, a linear regression analysis was performed, controlling for both the number of Life Events that has affected the participants and the social desirability tendency. The variables that were chosen for the analysis were the following: Nationality, Age, Gender, Work-Life Balance, Meaningfulness of Work and Meaningfulness at Work. The linear regression analysis, step by step, reveals that the variables that best explain work-related stress scores were: Work-Life Balance, Meaningfulness at Work, Gender and Meaningfulness of Work. The regression model obtained is presented in Table 3. This model explains 48.1% of the variance of the score of Work-Related Stress. The other variables were excluded from the regression equation.

Table 3. Linear regression analysis, step by step, to predict the score of Work-Related Stress with the variables Nationality, Gender, Age, Work-Life Balance, Meaningfulness of Work and Meaningfulness at Work, controlled by Life Events and Bias of Conformity (N=671)

Model with the retained factors	B Coefficients non-standardized	SEB Error standard	B Bêta	R ²	sr ² Error standard of the estimation
(Constant)	129.162	8.068		.481	16.931
Life Events	-.212	.383	-.016		
Conformity	1.281	.357	.105		
Work-Life Balance	-1.524	.084	-.555		
Meaningfulness AT Work	-.930	.333	-.100		
Gender	-5.430	1.337	-.116		
Meaningfulness OF Work	-1.137	.420	-.100		

$p < .05$

These results mean that after controlling for the number of life events that had a professor and his/her tendency to conform, his/her score for work-related stress is best predicted by work-life balance (negative, that is the more Work-Life Balance, the less Work-Related Stress; this variable is the strongest predictor of all of those that were tested), Meaningfulness at Work (negative too), Gender (women are more sensitive to work-related stress than men), and Meaningfulness of Work (negative too). It has to be noted that the nationality of the respondents was not retained in the equation, suggesting that the perception of stress related to work is not a question of where the professor is working but best explained by individual differences and attitudes toward work, in this sample.

4.2.2 Organizational commitment: affective and continuance

Among the indicators of QWL, two are noteworthy: affective commitment and continuance commitment. It seems that the Brazilian professors are more affectively committed to their university than are the Canadian professors. In addition, Canadian professors are more likely to have continuance commitment than are Brazilians. Does it mean that Canadians are less committed to their university? In fact, there is a significant difference in age between Canadians and Brazilians; professors working in the Quebec University are in average older than are Brazilians.

It is possible that being older has an effect on the nature of the commitment to their employers, since being closer to retirement; the nature of commitment to the employer might change from affective to continuance.

A linear regression analysis, step by step, was performed to better understand these two forms of commitment. The following variables were tested: Nationality, Gender, Age, Meaningfulness of Work, Meaningfulness at Work, Work-Life Balance and Work-Related Stress. The equation was controlled for the Bias of Conformity to neutralize the tendency to present desirable ideas.

4.2.2.1 Affective commitment

The linear regression analysis, step by step, reveals that the variables that best explain the scores of Affective Commitment were: Meaningfulness at Work, Meaningfulness of Work and Work-Related Stress. The regression model obtained is presented in Table 4. This model explains 38.3% of the variance in the scores of Affective Commitment. The other variables were excluded from the final equation.

Table 4. Linear regression analysis, step by step, to predict the score of Affective Commitment with the following variables: Nationality, Gender, Age, Meaningfulness of Work, Meaningfulness at Work, Work-Life Balance and Work-Related Stress, controlled for Bias of Conformity (N=671)

Model with the retained factors	B Coefficients non-standardized	SEB Error standard	B Bêta	R ²	sr ² Error standard of the estimation
Constant	7.174	2.365		.383	4.93587
Bias of conformity	.044	.104	.013		
Meaningfulness AT work	1.133	.097	.455		
Meaningfulness OF work	.505	.121	.166		
Work-related stress	-.031	.009	-.114		

$p < .05$

Affective commitment refers to the attachment, identification and involvement of employees towards their organization. One employee who manifests a strong affective commitment keeps his job because he wants to. In this sample, it seems that most professors who find meaningful their social relations at work and their work tend to be more affectively committed to their institutions. Also, experiencing less stress associated with work is likely to increase the strength of affective commitment. It should be noted that the being Brazilian or Canadian was not a factor kept in the regression analysis.

4.2.2.2 Continuance commitment

The same procedure was run for Continuance Commitment, as the dependent variable. The linear regression analysis, step by step, reveals that the variables that best explain the continuance commitment scores are: Work-Related Stress, Nationality, Meaningfulness of Work and Work-Life Balance. The regression model obtained is presented in Table 5. This model explains 18% of the variance in Continuance Commitment.

Table 5. Linear regression analysis, step by step, to predict the score of Continuance Commitment with the variables Nationality, Gender, Age, Meaningfulness of Work, Meaningfulness at Work, Work-Life Balance and Work-Related Stress, controlled by Bias of Conformity (N=671)

Model with the retained factors	B Coefficients non-standardized	SEB Error standard	B Bêta	R ²	sr ² Error standard of the estimation
Constant	8.904	3.783		.180	7.21500
Bias of conformity	.510	.153	.123		
Work-related stress	.125	.016	.367		
Nationality	1.644	.568	.103		
Meaningfulness OF work	-.405	.147	-.105		
Work-life balance	.103	.044	.111		

$p < .05$

The continuance commitment refers to the attitude an employee has toward his employer when he/she considers that quitting his/her job is too costly; in other words, he/she continues to work for the employer while he/she would rather quit. An employee displaying a strong continuance commitment keeps his job because he needs it.

In the sample of Brazilian and Canadian professors, when the level of work-related stress increases, the score of continuance commitment also increases. This means that when a professor perceiving more work-related stress is more susceptible to report a stronger continuance commitment to his/her university. Also, Canadians are more likely to display continuance commitment than do Brazilians. However, finding one's work meaningful could reduce the strength of this attitude. Finally, it seems that Work-Life Balance is a factor that could reinforce the attitude of continuance commitment, as the Beta is positive in this equation. How could we explain this puzzling result? It might be a reason one would continue to work in an organization when he/she is tempted to quit, especially when one is getting older and the retirement date is approaching. Having achieved a satisfying work-life balance, it could provide one with a feeling of safety that could be difficult to sacrifice.

5. Discussion

The survey asked to Brazilian and Canadian professors to assess their QWL and compare their perceptions about it. In general, the two groups seem to appreciate the quality of working life in their respective universities. However, there is a small difference between the evaluation that was made by Brazilians and Canadians. Indeed, it seems that Brazilians find more meaningfulness at work than do Canadians and they are also more affectively committed to their institutions than do Canadians. How can we explain this result?

As was found by Morin (2008), we must distinguish the meaningfulness of work and the meaningfulness at work. The results of this survey clearly showed that these professors make a difference between the two constructs. In particular, Brazilian professors find more meaningfulness at work than do their Canadian colleagues. In addition, these professors are mostly engaged in their work, but the nature of their attachment to their employer is different. Brazilians professors are more affectively attached to their institutions than are Canadian professors, the commitment of Canadians being more of continuance.

Brazilians and Canadians experience different level of work-related stress and this might explain why Brazilians tend to perceive a better quality of working life in their universities. However, it is quite possible that the job requirements in these countries are different as well as the value associated with status of the profession in the Brazilian culture.

The scores of work-life balance affect the scores of continuance commitment and work-related stress. It also appears that work-related stress has a significant effect on the nature of the commitment. It reduces the affective commitment, but increases continuance commitment. Finally, finding meaning at work and in the workplace strengthens professors' affective commitment.

6. Conclusion

This survey was designed to assess the quality of working life of public universities professors and to compare the ratings of professors working in an emerging country like Brazil, with those of professors working in a developed country like Canada. In this exploratory study, the results show that in general, professors feel they have a good quality of working life. Brazilian professors find more meaningfulness at work, they are more affectively committed with their own institutions, and they have higher work-life balance than Canadians. On the other hand, they present less continuance commitment and less work-related stress than Canadian colleagues.

In summary, the differences between the two groups are small and their size effects are also small. The differences are on five indicators: meaningfulness at work, work-related stress, affective commitment, continuance commitment and work-life balance. However, they helped us to test the applicability of the model to evaluate the quality of working life in public universities and to explore the nature of the QWL in two different realities.

References

- Boisvert, M. P. (1977). The quality of working life: an analysis. *Human Relations*, 30(2), 155-160.
- Carlson, D. S., Grzywacz, J. G. & Zivnuska, S. (2009). Is work-family balance more than conflict and enrichment? *Human Relations*, 62(10), 1459-1486.

- Chrétien, L. & Létourneau, I. (2010). La conciliation travail-famille : au-delà des mesures à offrir, une culture à mettre en place. *Gestion*, 35(3), 53-61
- Cooper C. L. (1985). The stress of work. *Aviation, Space and Environmental Médecine*, 56, 627-632.
- Davis, L. E. & Cherno, A. B. (1975). (Eds). *The Quality of Working Life. (Vol 1. Problems, Prospects, and the State of the Art)*, New York, USA, Free Press.
- Grzywacz, J. G. & Carlson, D. S. (2007). Conceptualizing Work—Family Balance: Implications for Practice and Research. *Advances in Developing Human Resources*, November, (9)4, 455-471.
- Johns, G. (2010). Presenteeism in the workplace: A review and research agenda, *Journal of Organizational Behavior*, 31, 519–542.
- Ketchum, L. D. & Trist, E. (1992). *All teams are not created equal: how employee empowerment really works*. Newbury Park: Sage.
- Levine, M. F. (1983). Self-developed QWL measures. *Journal of Occupational Behavior*, 4(1), 35-46.
- Loo, R., & Loewen, P. (2004). Confirmatory factor analysis of scores from full and short versions of the Marlowe-Crowne social desirability scale. *Journal of Applied Social Psychology*, 34(1), 2343-2352.
- Massé, R., Poulin, C., Dassa, C., Lambert, J., Bélair, S. & Battaglini, A. (1998). The Structure of Mental Health: Higher Order Confirmatory Factor Analyses of Psychological Distress and Well-Being Measures, *Social Indicators Research*, 45, 475-504.
- Meyer, J. P., & Allen, N. J. (1984). Testing the "Side-Bet Theory" of Organizational Commitment: some methodological considerations. *Journal of Applied Psychology*, 69(3), 372-378.
- Meyer, J. P. & Allen, N. J. (1991). A three-component conceptualization of organizational commitment, *Human Resource Management Review*, (1)1, 61–89.
- Morin, E. M. (2008). *Sens du travail, santé mentale au travail et engagement organisationnel*, Études et recherches, (Rapport R-543 - avec la collaboration de F. Aranha, FGV-EASP), Montreal, QC, Canada, IRSST.
- Parker, D. F., & DeCottis, T. A. (1983). Organizational Determinants of Job Stress, *Organizational Behavior and Human Performance*. 32(1), 160-177.
- Pratt, M. G. & Ashforth, B. E. (2003). Fostering meaningfulness in working and at work. In K. S. Cameron, J. E., Dutton, & R. E. Quinn (dir.). *Positive Organizational Scholarship: Foundations of a New Discipline*, (pp. 309-327), Berret-Koehler, San Francisco, CA, USA.
- Royuela, V., Lopez-Tamayo, J. & Surinach, J. (2008). The institutional vs. the academic definition of the quality of work life. What is the focus of the European Commission? *Social Indicators Research*, 86, 401-415.
- Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement with a short questionnaire. A cross-national study. *Educational and Psychological Measurement*, 66(1), 701–716.
- Schaufeli, W. B., Salanova, M., González-romá, V. & Bakker, A. B. (2002). The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach, *Journal of Happiness Studies*, (3)1, 71-92.
- Schneewind, K. A., & Kupsch, M. (2006). Perspectives psychologiques de la recherche sur les liens entre vie familiale et vie professionnelle. *La revue internationale de l'éducation familiale*, 1(19), 9-30.
- Veit, C. T. & Ware, J. E. (1983). The structure of psychological distress and well-being in general populations. *Journal of Consulting and Clinical Psychology*, 51(5), 730-742.
- Vilas Boas, A. A. & Morin, E. M. (2013a, September). Indicadores de qualidade de vida no trabalho para instituições públicas de ensino superior: uma comparação entre Brasil e Canadá. Anais do Encontro Nacional da Associação Nacional de Pós-graduação e Pesquisa em Administração, Rio de Janeiro, RJ, Brazil, 37.
- Vilas Boas, A. A. & Morin, E. M. (2013b, May). Le sens du travail et la qualité de vie au travail dans les établissements publics d'enseignement supérieur: une comparaison entre le Brésil et le Canada. Poursuites de la Colloque International AFIRSE: Recherche en éducation : Continuité, rupture ou limites? UQAM, Montréal, QC, Canada.
- Virtanen, P., Vahtera, J., Nakari, R., Pentti, J. & Kivimäki, M. (2004). Economy and job contract as contexts of sickness absence practices: Revisiting locality and habitus. *Social Science & Medicine*, 58, 1219–1229.
- Wrzesniewski, A., Dutton, J. E. & Debebe, G. (2003). Interpersonal Sensemaking and the Meaning of Work. *Research in Organizational Behavior*, (25), 93–135. ISSN: 0191-3085/doi:10.1016/