

A TWO PROCESS MODEL OF BURNOUT: THEIR RELEVANCE TO SPANISH AND CANADIAN NURSES

Michael P. Leiter*¹, Santiago Gascón** and Begoña Martínez-Jarreta***

*Centre for Organizational Research & Development

**Faculty of Medicine, University of Zaragoza (Spain)

*** School of Occupational Medicine, Faculty of Medicine, University of Zaragoza (Spain)

Nurses from Spain ($N = 834$) and Canada ($N = 725$) completed surveys assessing burnout and their perceptions of worklife. The study explored a two-process model of burnout. First, work overload exhausts nurses by exerting excessive demands and interfering with their capacity to recover energy. Second, enduring conflicts of personal and organizational values have a diverse relationship with burnout. A series of multiple regression analyses examined the relative contributions of these two processes. One process was evident in the contribution of workload to predicting exhaustion that in turn predicted cynicism that predicted efficacy. In parallel, value congruence contributed significantly to the regressions on each of the three aspects of burnout in addition to the workload-exhaustion-cynicism-efficacy process. Further, multiple regression analyses demonstrated that other areas of worklife—control, reward, community, and fairness—were strongly associated with value congruence in a manner distinct from the relationship of values with manageable workload. The two samples showed evidence of both processes, but that the workload/exhaustion process was dominant for the Canadian sample while the values/burnout process was more relevant for the Spanish sample. Implications for a comprehensive model of burnout are discussed.

Keywords: Burnout, Workload, Values, Nurses

El objetivo de este estudio es explorar un modelo de doble proceso sobre el síndrome de quemarse por el trabajo (SQT) (burnout). La muestra estuvo formada por profesionales de enfermería españoles ($N = 834$) y canadienses ($N = 725$), que rellenaron un cuestionario para evaluar el SQT y percepciones de su vida laboral. Un proceso hipotetiza que la sobrecarga laboral agota a las profesionales de enfermería debido al exceso de demandas y a que interfiere en su capacidad de recuperación. Según el segundo modelo los conflictos entre los valores personales y organizacionales tienen efectos que influyen en el desarrollo del SQT. Se realizaron análisis de regresión múltiple para analizar los dos procesos del SQT. La sobrecarga predijo los niveles de agotamiento, y la congruencia entre valores personales y organizacionales resultó un predictor significativo de las tres dimensiones del SQT explicando mayores porcentajes de varianza a los explicados por la sobrecarga laboral. Se obtuvo evidencia para ambos procesos en las dos muestras. En la discusión se presentan las implicaciones para un modelo comprensivo sobre el SQT.

Palabras clave: Síndrome de quemarse por el trabajo, burnout, sobrecarga laboral, valores, enfermería.

People work in organizational environments that have enduring structures, policies, and procedures that influence their experience of their work and themselves. To some extent, people contribute their time and effort to meet the demands of their jobs. Through the effective application of their talent and abilities, they respond to work demands. But this process is not the full story of worklife, especially for people who are bringing highly developed skills

to work of personal importance. In these situations, the organization's priorities as well as its task demands become important aspects of the work experience. When things are going well on both dimensions, employees experience work engagement, characterized by energy, involvement, and efficacy. When these processes are operating poorly, employees are vulnerable to burnout. To examine these processes and their generalizability across distinct settings, this study explores a two process model of burnout with hospital-based nurses from Spain and from Canada.

The Research Model

The Maslach Burnout Inventory (Maslach, Jackson, & Leiter, 1996) reflects a three-factor model of burnout in

The original Spanish version of this paper has been previously published in *Informacio Psicológica*, 2007, No 91-92, 95-109

.....

Correspondence concerning this article should be addressed to Santiago Gascón. Escuela Profesional de Medicina del Trabajo. Facultad de Medicina. Universidad de Zaragoza. C/ Domingo Miral, s/n. 50009 Zaragoza. Spain. E-mail: sgascon@unizar.es

terms of energy, involvement, and efficacy. Although some researchers have used the term, burnout, to refer to exhaustion (cf Shirom, 1989), the syndrome is more complex than chronic fatigue. The second aspect of burnout, involvement, dimension includes a specific inability to care about service recipients (depersonalization) or to be absorbed in work activities (cynicism). This dimension expands the focus from individuals' concern with physical or emotional wellbeing to consider their capacity to connect with the external world. The third dimension, efficacy, describes employees' self evaluations. Contrary to the process of building efficacy through mastery experiences (Bandura, 1982), the experience of chronic exhaustion and cynicism erodes employees' belief in their capacity to exert influence on their work world. These three interdependent experiences form the full burnout syndrome.

Limiting the definition to the exhaustion aspect of burnout encourages an exclusive focus on the adverse impact of work overload and exhaustion. This relationship is central to job stress and burnout research. Employees have a limited capacity to apply energy to work demands. Eventually, they will experience fatigue if they encounter excessive demands and have insufficient time for recovery. Although this dynamic is an important part of the burnout process, but it is not the only process occurring. Although this dynamic is important and factual, it does not have the complexity needed to support a worldwide research program for three decades, as has occurred with burnout.

The second, and more complex, dynamic at work in burnout is value congruence. The burnout syndrome is especially relevant to occupations that require dedication. The original focus of burnout was on human service professions (Freudenberger, 1974; Maslach & Jackson, 1981). Its importance was not solely that people felt exhausted from too much work, but that they lost the capacity for involvement in their work. They no longer cared about their service recipients. Further, they lost their sense of accomplishment, concluding that they no longer made a meaningful contribution through their work. When broadening the burnout syndrome beyond human services in the MBI—General Scale (Leiter & Schaufeli, 1996), the three-component framework continued. Although exhaustion continued to be an important part of the framework, burnout encompassed both employees' capacity for involvement in their work and the sense of profession efficacy they derived from their contribution.

From this perspective, workload leading to exhaustion is only one process to consider with burnout. Considering the balance of demands to resources, as in the Job Demand/Resources (JD/R) model of burnout (Bakker, Demerouti, & Schaufeli, 2002) includes more relevant information, but remains incomplete. A complete perspective on the organizational context of burnout considers value congruence as well (Leiter & Maslach, 2004; Maslach & Leiter, 1997).

At issue is the correspondence of two distinct set of values. One set includes individual values of employees. Individuals through various processes, including personal experience, cultural background, or professional training, develop a set of values pertaining to their work. Some people can clearly articulate their work values as a structured framework, assigning relative importance to activities, settling ethical conflicts, and guiding plans. Others have only a general idea of values. They may not be aware of their values until they encounter an event that offends their expectations. The second set includes the corporate values of the organization. Corporate values are expressed through organizational mission, vision, and values statements. These may be prominently displayed, guiding major organizational policy decisions and influencing the organization's day-to-day operational decisions. In other situations, corporate values are poorly articulated in a generic fashion, including nothing unique to the specific organization. The values-in-action that guide the organization's important decisions may differ considerably from the documented values.

A central proposition presented here is that employees monitor the congruence of their personal values with those of the organization. Their judgments of congruence are a defining factor in their psychological relationship with work. Congruence of personal and organizational values confirms individuals of their relevance to the organization. It also assures them that they are properly positioned to pursue what is truly important in their careers. Organizations provide the resources, networks, and opportunities through which people can have a significant impact in their careers. The lone individual has only a modest impact in a post-industrialized work world. People working in an organization with congruent values are motivated to pursue shared objectives and are reassured that they possess the efficacy to achieve those objectives.

In contrast, the experience of value conflicts with an employer can be the occasion for a career crisis. When in conflict, pursuing personal values at work incurs risk.

Employees may encounter conflict with supervisors or other organizational personnel for neglecting organizational priorities for other activities. When complying with organizational values, employees may judge that they are wasting their talents and time on trivial matters. In extreme situations, they may conclude that pursuing organizational values requires them to behave unethically.

Research (Laschinger & Finegan, 2005; Siegall & McDonald, 2004; Verplanken, 2004) found strong correlations of value incongruence and burnout for university faculty members. They also found that burnout mediated relationships of value incongruity with outcomes, such as the amount and quality of work. Value congruence of employees with the organization played a much greater role than did value congruence among co-worker in predicting job satisfaction (Ostroff, Shin, & Kinicki, 2005). A large-scale Swedish study found that the relationship of value congruence and burnout is evident across a wide range of occupations across the country (Lindblom, Linton, Fedeli, & Bryngelssov, 2006).

In light of these considerations, it is predicted that value incongruity has implications for all three aspects of burnout. First, the strain of ongoing conflict with the organization or central people within that organization depletes employees' energy. Both the strain of conflict and the futility of wasted talent are exhausting. Second, value conflicts decrease employees' involvement in their work. Employees experience a de-motivating situation in which they are discouraged from pursuing what they truly value. Third, they lose their sense of efficacy and accomplishment as they devote their time and talents to activities of little personal importance. Together the impact of value congruence constitutes a major process in the development of burnout. By going beyond an exclusive focus on the exhausting impact of excessive work demands, the model provides a deeper consideration of employees' application of personal values to understand their worklife.

The hypotheses for this study are as follows.

Hypothesis 1. Both workload and value congruence will contribute distinctly to the prediction of exhaustion. Specifically, both workload and value congruence will be statistically significant predictors in a multiple regression on exhaustion.

Hypothesis 2. Both exhaustion and value congruence will contribute distinctly to the prediction of cynicism. Specifically, both exhaustion and value congruence will be statistically significant predictors in a multiple

regression on cynicism. This prediction is consistent with the process model of Leiter (1993) that proposed exhaustion as mediating the relationship of workload with cynicism.

Hypothesis 3. Both cynicism and value congruence will contribute distinctly to the prediction of efficacy. Specifically, both cynicism and value congruence will be statistically significant predictors in a multiple regression on efficacy. This prediction is consistent with the process model of Leiter (1993) that proposed cynicism as mediating the relationship of exhaustion with cynicism.

The primary focus of the study is the relationships of value congruence with burnout. The analysis considers these relationships directly in the context of work overload that makes a distinct and strong contribution to the exhaustion aspect of the syndrome. The overall descriptive statistics for the two samples in the study consider as well the other four areas of worklife that are central to Mediation Model of burnout (Leiter & Maslach, 2004; Maslach & Leiter, 1997): control, reward, community, and fairness. These other areas of worklife have consistently strong relationships with value congruence. Leiter and Maslach (2004) propose that employees' experience of these other areas of worklife inform their evaluation of value congruence. That is, work settings in which they have positive experiences regarding control, reward, community, and justice will generally be consistent with their work values. Workload does not directly define value congruence: their analysis demonstrated that the relationship of workload with employees' energy levels operates in parallel with the process defining values. These considerations lead to the following prediction.

Hypothesis 4. Four areas of worklife (control, reward, community, and fairness) will reach contribute to predicting value congruence and manageable workload will not significantly contribute to the prediction in the context of the other predictors. This hypothesis assumes a significant zero-order correlation of manageable workload with value congruence.

In this context, the hypothesis is not simply predicting a nonsignificant relationship of manageable workload with value congruence, but predicts that the other areas of worklife account for a significant relationship between these two variables.

Method

Participants: Spanish Sample

Participants in the study included 834 nurses working in

three public hospitals in northern and eastern Spain. The hospitals were of varying numbers of employees: 4500, 2500, and 550. They included inpatient services as well as outpatient primary health services.

The participants included 187 males (21.4%) and 687 females (78.6%). Most (463, 53.0%) were in permanent positions, with the remainder in temporary positions of varying contract length. Most were married (694, 79.4%) and most had dependent children (542, 62.0%). Specialty areas included laboratory (13, 1.5%), internal medicine (101, 11.6%), surgery (127, 14.5%), emergency medicine (98, 11.2%), cardio (88, 10.1%), neurology, (30, 3.4%), oncology (33, 3.8%), ophthalmology (16, 1.8%), otology (5, 0.8%), psychiatry (49, 5.6%), and gynecology (71, 8.1%), with the remainder in other specialties. Participants had worked in their profession for varying times: less than two years (225, 25.7%), 2 to 5 years (186, 21.3%), 5 to 10 years (172, 19.7%), 10 to 15 years (149, 17.0%), 15 to 20 years (94, 10.8%) and more than 20 years (48, 5.5%).

Participants: Canadian Sample

Most of the sample (n=725) were female (687) (25 respondents did not specify their gender). Respondents included Registered Nurses (n=589), Licensed Practical Nurses (n=85), Clinical Nurse Specialists (n=5), Clinical Nurse Educators (n=5), Nurse Practitioners (n=3), and "other" (n=15; 23 respondents did not specify their job title). Participants worked in Tertiary Hospitals (n=226), Regional Hospitals (n=362), Community Hospitals (n=89), or other settings (24; 24 respondents did not specify their work environment). The majority of participants worked full time (n=437), with 135 respondents working part time, and 46 respondents working casual (107 did not specify their work status). The majority of respondents were staff nurses (n=601), and there were 29 managers and 68 classified as "other" (27 respondents did not indicate their position). Respondents included members of the District Nurse Advisory Council (n=19) and members of the Practice Council (n=37), but most respondents were not members of either type of council (n=669). Of the participants, 54 of them had worked at their present organization for less than a year; 240 had worked at their organization for 2-10 years, 210 had worked for 11-20 years, and 199 had worked at their present organization for over 20 years (22 participants did not specify their time with their organization). The sample represents a 29% response rate for the 2500 surveys distributed to

acute care settings in Atlantic Canada. The large proportion of full time, female, point-of-care Registered Nurses is representative of the population in this region (Canadian Institute for Health Information, 2005a, 2005b).

Instruments: Both Samples

Burnout. Burnout was measured using the Maslach Burnout Inventory—General Scale (MBI—GS; Schaufeli, Leiter, Maslach, & Jackson, 1996). The MBI-GS measures the three dimensions of the burnout: exhaustion, cynicism, and inefficacy. The items are framed as statements of job-related feelings (e.g., "I feel burned out from my work"; "I feel confident that I am effective at getting things done"), and are rated on a 6-point frequency scale (ranging from 0="never" to 6="daily"). Burnout is reflected in higher scores on exhaustion and cynicism, and lower scores on efficacy, whereas the opposite pattern is consistent with greater work engagement. Developed from the original MBI (Maslach, Jackson, & Leiter, 1996), which was designed for human service occupations, the MBI-GS is a 16-item measure that evaluates burnout among people in all occupations.

Areas of Worklife. The Areas of Worklife Scale (AWS) (Leiter & Maslach, 2000, 2004) comprises 29 items that produce distinct scores for six areas of worklife—manageable workload (6), control (3), reward (4), community (5), fairness (6), and values (5). The items are worded as statements of perceived congruence or incongruence between oneself and the job. Each subscale includes positively worded items of congruence, e.g., "I have enough time to do what's important in my job" (manageable workload) and negatively worded items of incongruence, e.g., "Working here forces me to compromise my values" (values). Respondents indicate their degree of agreement with these statements on a 5-point Likert-type scale ranging from 1 (strongly disagree), through 3 (hard to decide), to 5 (strongly agree). The scoring for the negatively worded items is reversed. For each of the six subscales, the AWS measure defines congruence as a high score (greater than 3.00), indicating a higher degree of perceived alignment between the workplace and the respondent's preferences. Conversely, it defines incongruence as a low score (less than 3.00), indicating more perceived misalignment or misfit between the worker and the workplace. The AWS items were developed from a series of staff surveys conducted by the Centre for Organizational Research & Development

(Leiter & Harvie, 1998; Maslach & Leiter, 1997) as a means of assessing the constructs underlying our analysis of the six areas of worklife. The scale has yielded a consistent factor structure across samples (Leiter & Maslach, 2004).

For the Spanish sample, the research team translated the questionnaires from English into Spanish. Back translations were evaluated in consultation with native English speakers and revised. This study is the first large scale application of the translation.

Procedure: Spanish Sample

The research team conducted a series of meetings at the participating hospitals. They described the rationale, objectives, and procedures for the survey and invited attendees to complete the survey package. The researchers distributed brochures and posters describing the study to informed potential participants who could not attend the meetings. Participants completed the questionnaires over the following two weeks, depositing the completed questionnaire in a locked box at the work setting. Participation was anonymous. The researchers conducted sessions at the hospitals describing the research results.

Procedure: Canadian Sample

Participation in the study involved completion of the questionnaire package. The researchers distributed paper questionnaire packages to nurse managers at selected hospitals in all four Atlantic Provinces in Canada. Nurse Managers were responsible for distributing the packages to point-of-care nurses working on their units either during unit meetings, by placing the packages in mailboxes, or by leaving a stack of packages with ward clerks to help distribute. All of the packages included the survey, an information letter detailing the procedures and reason for the study, a flyer to advertise the online version of the survey, and a ballot and ballot envelope. As an incentive to participate, all nurses who completed the survey were given the opportunity to enter their name into a prize draw.

Similarities and Differences between the samples

The first step in the analysis is examining the similarities and differences between the two samples. A series of t-test contrasted the Spanish and Canadian samples on the nine variables in the study, using a criterion of $p < .0056$ as a Bonferoni correction for multiple comparisons. As indicated in Table 1, the two groups differed on all measures, but the direction of the difference varied across the measures.

The Canadian nurses reported higher scores on exhaustion and cynicism, indicating more negative experiences regarding energy and involvement. They also reported higher scores on efficacy, indicating a more positive experience on the third component of burnout. For all six areas of worklife, a larger score indicates a more positive evaluation, or greater congruence, on that dimension. As indicated in Table 1 and displayed in Figure 1, the Spanish nurses reported more positive evaluations of workload than did the Canadian nurses, but reported more negative evaluations of the other five areas of worklife.

The midline of the graph in Figure 1 represents normative scores on the measure. The bars, representing the scores for Canadian and Spanish nurses, are the differences divided by the standard deviation of the normative sample. The reference scores for the MBI—GS subscales are the nursing norms from the MBI Manual (Maslach, Jackson, & Leiter, 1996). The norms for the Areas of Worklife Scale are from its Manual based upon 17,079 responses to the questionnaire, encompassing 35 surveys of diverse occupations in seven languages from around the world (Leiter & Maslach, 2007). The Canadian nurses scored more positively than the normative group on exhaustion and

Table 1
Comparisons of Spanish and Canadian Nurses

Measure	Spain		Canada		t	Sig.	99.44% Confidence	
	Mean	S.D.	Mean	S. D.			Lower	Upper
Exhaustion	2.40	.91	2.65	1.46	-4.18	.0001	-.42	-.08
Cynicism	1.63	1.27	1.83	1.42	-2.93	.0034	-.39	-.01
Efficacy	3.86	1.09	4.45	.98	-11.13	.0001	-.74	-.44
Manageable Workload	2.97	.75	2.75	.73	5.62	.0001	.11	.32
Control	2.96	.77	3.08	.79	-3.09	.0021	-.23	-.01
Reward	2.90	.83	3.10	.79	-4.71	.0001	-.31	-.08
Community	3.07	.74	3.46	.69	-10.85	.0001	-.49	-.29
Fairness	2.50	.65	2.75	.65	-7.54	.0001	-.34	-.16
Values	2.95	.67	3.23	.61	-8.41	.0001	-.36	-.18

Table 2
Contrasts of Spanish and Canadian Nurses with Norms

Measure	Norms		Spain		Canada	
	Mean	S.D.	t	Sig.	t	Sig.
Exhaustion	2.95	1.56	26.36	.001	9.21	.001
Cynicism	1.80	1.30	5.84	.001	-0.99	n.s.
Efficacy	4.41	1.02	21.29	.001	-1.55	n.s.
Manageable Workload	2.75	0.72	9.36	.001	0.09	n.s.
Control	3.08	0.78	-4.45	.001	0.68	n.s.
Reward	3.10	0.94	-6.68	.001	1.02	n.s.
Community	3.46	0.83	-8.07	.001	8.63	.001
Fairness	2.75	0.77	-8.93	.001	1.88	n.s.
Values	3.23	0.66	-14.52	.001	-1.84	n.s.

community (see Table 2). The Spanish nurses differed significantly from the norms on every measure. They scored more positively on exhaustion, cynicism and workload and more negatively on all the other measures.

RESULTS

Table 3 displays correlations among the measures for the Spanish sample; Table 4 displays this information for the Canadian sample. The correlations follow similar patterns across the two samples. For both samples, the strongest correlation of an area of worklife with an aspect of burnout is that of manageable workload with exhaustion (Spanish, $r = -.47$; Canadian, $r = -.61$). In contrast, all of the other areas of worklife have their largest correlation with either cynicism or efficacy.

A series of multiple regression analysis examined this pattern further. The outcome variables were the three aspects of burnout: exhaustion, cynicism, and efficacy. For cynicism, exhaustion was entered as a predictor on the first step; for efficacy, cynicism was entered as a predictor on the first step, following a process model of

burnout (Leiter, 1993; Leiter & Maslach, 2004). In the second step of these analyses, both values and workload were allowed to enter in a stepwise fashion: either or both of the predictors could enter the equation if their coefficient was significant at the .05 level. For exhaustion, values and workload were entered in this fashion in Step 1. As indicated in Table 5, workload was only a significant predictor in the regression on Exhaustion. In contrast, values was a predictor of all three aspects of burnout in the context of the other predictors.

In summary, Hypothesis 1 was confirmed with significant coefficients for manageable workload ($\beta = -.44$ Spain; $\beta = -.56$ Canada) and value congruence ($\beta = -.15$, Spain; $\beta = -.12$, Canada). Hypothesis 2 was confirmed with significant coefficients for exhaustion ($\beta = .46$, Spain; $\beta = .51$, Canada) and value congruence ($\beta = -.22$, Spain; $\beta = -.21$, Canada). Hypothesis 3 was confirmed with significant coefficients for cynicism ($\beta = -.33$, Spain; $\beta = -.29$, Canada) and value congruence ($\beta = .12$, Spain; $\beta = .20$, Canada).

Hypothesis 4 was tested with multiple regression analyses with each sample. The analysis entered four areas of worklife (control, reward, community, fairness) on Step 1 and then tested whether workload had a significant coefficient in Step 2. As indicated in Table 6, the coefficients of all four predictors in Step 1 were significant for the Spanish sample. For the Canadian sample, only three of the four predictors were significant, with community having a marginally significant coefficient ($p = .059$). For both samples, manageable workload did not make a significant contribution to predicting value congruence in the context of the other predictors, despite its significant zero-order correlation for the Spanish ($r = .17$) and Canadian ($r = .27$) samples. This pattern of results provides full support for Hypothesis 4 for the Spanish sample and partial support for the Canadian sample.

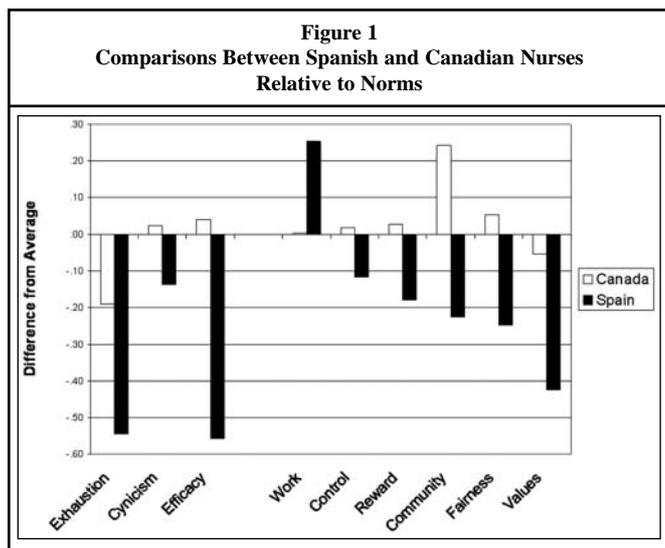


Table 3
Correlations and alphas for the Spanish Sample

Variable	α	2	3	4	5	6	7	8	9
1. Exhaustion	.91	.51	-.18	-.47	-.21	-.33	-.19	-.25	-.23
2. Cynicism	.81		-.41	-.35	-.24	-.41	-.32	-.31	-.32
3. Efficacy	.78			.16	.28	.26	.20	.15	.20
4. Manageable Workload	.74				.31	.28	.23	.25	.17
5. Control	.62					.46	.33	.37	.35
6. Reward	.78						.34	.35	.28
7. Community	.77							.31	.32
8. Fairness	.74								.46
9. Values	.65								

Note: N = 834, all correlations significant $p < .01$

Table 4
Correlations and alphas for the Canadian Sample

Variable	α	2	3	4	5	6	7	8	9
1. Exhaustion	.92	.59	-.26	-.61	-.35	-.45	-.25	-.36	-.29
2. Cynicism	.76		-.38	-.39	-.40	-.53	-.30	-.41	-.39
3. Efficacy	.86			.24	.39	.32	.20	.27	.34
4. Manageable Workload	.80				.40	.35	.28	.31	.27
5. Control	.71					.45	.28	.51	.47
6. Reward	.81						.38	.52	.39
7. Community	.82							.39	.27
8. Fairness	.76								.53
9. Values	.74								

Note: N = 667, all correlations significant $p < .01$

DISCUSSION

The study found major differences between on burnout and worklife evaluations by Canadian and Spanish nurses. It also supported the concept of burnout as encompassing two processes. One process is evident in the relationship of workload with exhaustion. The other process arises in the relationship of values with all three aspects of burnout. Replicating these patterns across two distinct samples of hospital-based nurses from Spain and Canada confirmed that these processes are relevant to both settings. The results are discussed in reference to their relevance to burnout research and the importance of cross-cultural projects.

The two-process model of burnout is reflected in the distinct pattern of scores across the measures in the study. One process is the link of workload with exhaustion. This connection is a mainstay of burnout research (Halbesleben & Buckley, 2004; Maslach, Schaufeli, & Leiter, 2001). Through its connections with the other two aspects of burnout, exhaustion mediates the relationship of workload. The regression analyses confirmed this relationship in both samples. The second process is the impact of value congruence on the full burnout syndrome. The distinct relationships of values with all three aspects of burnout reflect its broad relevance. This dynamic defines burnout as something more than an exhaustion syndrome. That quality of burnout is captured adequately in the workload process. The issue of value congruence confirms employees as active participants in their worklife. They are not merely functionaries performing tasks until they are too tired to continue. They enter their work world with a set of values and perspectives that they use to make sense of the experiences, structures, and procedures they encounter. When they conclude that personal and organizational values are in conflict, they are not only vulnerable to fatigue, but also to losing their capacity to work in a dedicated and fulfilling manner.

The two samples differed regarding the relevance of these two processes to their experience of worklife. The profile of scores for the Canadian nurses indicated a strong workload process. They were less content with their workload and expressed more negative scores on exhaustion and cynicism than did the Spanish nurses. In contrast, the Spanish nurses provided more negative evaluations of the other areas of worklife, especially value congruence, and reported more negative levels of professional efficacy. While these results cannot be generalized to characterize the two nation's public health systems, they do indicate the extent to which two groups of hospitals can differ on the processes pertaining to job burnout.

The pattern of responses on areas of worklife differs strongly across the two samples. The Canadian sample has only one complaint about their worklife: there are too many work demands. This single complaint is not sufficient to prompt a major crisis in burnout: although they are significantly more exhausted than nurses in the Spanish sample, they remain less exhausted than the normative group. On the other areas of worklife, they score at the normative level or more positively. In general, they experience a reasonable level of congruence of their personal values with those of their employing hospital. In contrast, the nurses in the Spanish sample have a broad range of concerns about their worklife. These doubts are most strongly indicated by a negative score on values: they perceive conflict between their personal values and those of their employers. The survey did not identify the specific issues within this conflict. This general assessment of work values suggests that a value clarification process within these hospitals may be beneficial.

The study is limited by a reliance on cross-sectional, self report data. The two samples are convenience samples regarding this analysis because the hospitals

Table 5
Multiple Regression of Workload and Values on Burnout

	Spain			Canada		
	Exhaustion	Cynicism	Efficacy	Exhaustion	Cynicism	Efficacy
Exhaustion		.46			.51	
Cynicism			-.33			-.29
Workload	-.44			-.56		
Values	-.15	-.22	.12	-.12	-.21	.20
F(2,871)	138.64	188.80	90.08	268.51	257.00	54.66
R ²	.24	.30	.17	.39	.41	.18
Sig.	.001	.001	.001	.001	.001	.001

Note: all coefficients in the table: $p < .01$; nonsignificant coefficients for workload are not displayed.

Table 6
Multiple Regression of Control, Reward, Community, and Fairness on Values

	Spain			Canada		
	t	Beta	Sig.	t	Beta	Sig.
Control	13.89	.18	.001	6.19	.23	.001
Reward	2.18	.06	.001	2.73	.10	.006
Community	5.56	.13	.001	9.41	.06	.059
Fairness	13.98	.35	.001	1.58	.36	.001
Workload	0.15	.01	.523	1.26	.05	.209
F(4,1531)	138.64		F(3,717)	119.60		
Adj R ²	.31			.33		
Sig.	.001			.001		

were not systematically selected to establish the contrasts explored in this study. Although using the same measures, the original research studies occurred without reference to one another. As such, the research cannot be taken as a definitive contrast of Canadian and Spanish nurses. The differences between the samples may reflect differences in the hospital missions, funding, or local issues rather than national culture. However, a strength of the comparison is that both the Canadian and the Spanish sample included nurses from multiple public sector hospitals. Although they do not constitute representative national samples, they provide a diverse perspective on their national regions.

The research questions raised in this study would benefit from longitudinal research projects that track the development of the workload and values processes over time. Also, the work would be enhanced by integrating the survey responses with other sources of data regarding nurses' experience of their worklife. Through a more extensive research network spanning both countries, researchers could develop the capacity to conduct definitive research addressing cross-cultural issues.

Research on the role of value congruence in building work engagement and preventing burnout has the potential for making a major contribution to this field. One element of a research agenda is to consider factors that shape employees' career values. This exploration can consider the origin of long-term career narratives from a developmental perspective. It would also examine the development of professional values through the process of advanced education. A second question is the process through which employees determine organizational values. One element of this process will be employees' familiarity with organizations' official statements of mission, vision, and corporate values. A parallel process includes their evaluation of the values implicit in decisions and priorities evident in day-to-day organizational life. The analysis presented above regarding relationships of areas of worklife with value congruence demonstrates in a general way the relevance of work experience to employees' judgments about values. A more detailed examination of the cognitive and emotional processes underlying these judgments would provide a deeper perspective on how worklife experience influences employees' experience of burnout or work engagement.

A more ambitious research agenda would consider

interventions to enhance value congruence, assessing their impact over time. Potential interventions could target corporate communications as well as the responsiveness of organizations to employees' values. Regarding corporate communications, interventions could consider ways in which organizations state their values and their procedures for assuring that these values influence major decisions. Employees are likely to perceive value incongruence when they perceive the organization as taking action that contradicts the organization's stated values. This incongruity may occur because of poor communication—employees fail to understand the strategies underlying these events—or because of weak management controls—managers make important decisions without reference to organizational values. The first problem could benefit from interventions that focus on improving communications from managers while the second problem could be addressed by better communications from executive levels of the organization with managers. The choice of intervention would depend on an organizational assessment. The research could evaluate the impact of these interventions by examining changes in the communications as well as evaluating employees' perceptions of value congruence over time.

Another direction for intervention is developing processes through which organizations become more aware of and responsive to employees' values. An increased capacity for senior management to listen to employees and consider the values employees bring to their work has the potential to develop a more engaging worksetting.

In summary, the research reported here found support for a two process model of burnout. The research also found striking differences between a Spanish and a Canadian sample of nurses. The Canadian nurses appeared to encounter greater challenges with the workload process while the Spanish nurses encountered greater challenges with the values process. A more extensive examination of these processes has the potential to make a significant contribution to understanding and addressing burnout. The research has the potential to make a meaningful contribution to enhancing the quality of workplaces by addressing the exhaustion, cynicism, and inefficacy associated with pervasive value conflicts. It also has the potential for enhancing work engagement through greater value congruence.

REFERENCES

- Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2002). Validation of the Maslach Burnout Inventory—General Survey: An Internet study. *Anxiety, Stress & Coping: An International Journal*, *15*, 245-260.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*, 122-147.
- Canadian Institute for Health Information. (2005a) *Workforce trends of registered nurses in Canada, 2004*. Ottawa: Canadian Institute for Health Information.
- Canadian Institute for Health Information. (2005b) *Workforce trends of licensed practical nurses in Canada, 2004*. Ottawa: Canadian Institute for Health Information.
- Freudenberger, H.J. (1974). Staff burnout. *Journal of Social Issues*, *30*, 159-165.
- Halbesleben, J. R. B & Buckley, M. R. (2004). Burnout in Organizational Life *Journal of Management*, *30*, 859–879.
- Laschinger, H. K. & Finegan, J. (2005). Empowering nurses for work engagement and health in hospital settings. *Journal of Nursing Administration*. *35*, 439-449.
- Leiter, M. P. (1993). Burnout as a developmental process: Consideration of models. In W. Schaufeli, C. Maslach, Marek, T. (Eds.) *Professional burnout: Recent developments in theory and research*, pp. 237 - 250. Washington: Taylor & Francis.
- Leiter, M. P., & Harvie, P. (1998). Conditions for staff acceptance of organizational change: Burnout as a mediating construct. *Anxiety, Stress, & Coping*, *11*, 1-25.
- Leiter, M. P. & Maslach, C. (2000). *Preventing burnout and building engagement: A training package*. San Francisco: Jossey Bass.
- Leiter, M. P. & Maslach, C. (2004). Areas of worklife: A structured approach to organizational predictors of job burnout. In P. Perrewé & D. C. Ganster, (Eds.), *Research in occupational stress and well being: Vol. 3. Emotional and physiological processes and positive intervention strategies*: 91-134. Oxford, UK: JAI Press/Elsevier.
- Leiter, M. P. & Maslach, C. (2007). *The Areas of Worklife Scale Manual*. Centre For Organizational Research & Development, Wolfville, NS, Canada.
- Leiter, M. P., & Schaufeli, W. B. (1996). Consistency of the burnout construct across occupations. *Anxiety, Stress, & Coping*, *9*, 229-243.
- Lindblom, K. M., Linton, S. J., Fedeli, C. & Bryngelssov, I. (2006). Burnout in the working population: relations to psychosocial work factors. *International Journal of Behavioral Medicine*, *13*, 51-59.
- Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach Burnout Inventory Manual (3rd ed.)*. Palo Alto, CA: Consulting Psychologists Press.
- Maslach, C., & Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behaviour*, *2*, 99-113.
- Maslach, C. & Leiter, M. P. (1997). *The truth about burnout*. San Francisco: Jossey Bass.
- Ostroff, C., Shin, Y., & Kinicki, A. J. (2005). Multiple perspectives of congruence: relationships between value congruence and employee attitudes, *Journal of Organizational Behavior*, *26*, 591 – 623.
- Schaufeli, W. B., Leiter, M. P., Maslach, C., & Jackson, S. E. (1996). The Maslach Burnout Inventory—General Survey. In C. Maslach, S. E. Jackson, & M. P. Leiter, *MBI Manual (3rd edition)*. Palo Alto, CA: Consulting Psychologists Press.
- Shirom, A. (1989) Burnout in work organizations. In: C.L. Cooper and I. Robertson (Eds.) *International Review of Industrial and Organizational Psychology* (pp. 2548) New York: Wiley.
- Siegall, M. & McDonald, T. (2004). Person-organization value congruence, burnout and diversion of resources. *Personnel Review*, *33*, 291 – 301.
- Verplanken, B. (2004). Value congruence and job satisfaction among nurses: a human relations perspective. *International Journal of Nursing Studies*, *41*, 599-605.