# A study of physicians' intention to quit: The role of burnout, commitment and difficult doctor-patient interactions

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Research on burnout and turnover intentions offers some inconsistent findings about the effects of commitment. In addition, a factor which is insufficiently studied in the turnover field is the relationship with the recipient of physicians' work, that is, the patient. This study contributes to the research literature by examining how the moderating effect of commitment depends on difficult doctor-patient relations. A total of 480 physicians, representative of Madrid, completed the survey. According to the interaction effects and the three-way interaction analyses, the results support the argument that differences in commitment lead to differences in the way physicians perceive job, interpersonal, and chronic stress. These results add a new approach to the general assumption that commitment has a unilateral negative effect, and difficult patients have a positive effect on turnover intentions, suggesting an integrated perspective, rather than a diametrical one, that allows us comprehend the complexity of physicians' turnover intentions.

Las intenciones de abandono del personal médico: el papel del burnout, el compromiso y las dificultades en las relaciones médico-paciente. Las investigaciones sobre las relaciones entre el burnout y las intenciones de abandono muestran algunos datos inconsistentes en cuanto al efecto del compromiso. Asimismo, un factor relevante aunque insuficientemente investigado en el estudio de las intenciones de abandono es el relativo al efecto que tiene las actitudes del paciente en el proceso. En esta investigación abordamos el efecto moderador que los niveles de compromiso y las dificultades en las relaciones médico-paciente pueden tener en el proceso. Mediante una muestra representativa de 480 médicos los resultados mostraron efectos significativos en los análisis de regresión y de interacción triple. Estos resultados indican que las diferencias encontradas en cuanto a los niveles de compromiso inciden directamente en la percepción de las distintas fuentes de estrés médico tanto relacionadas con su trabajo, como con las relaciones interpersonales. Los resultados introducen una nueva aproximación al proceso de burnout y las intenciones de abandono mostrando que no existen efectos unilaterales negativos en el caso del compromiso y positivos en el caso del manejo de pacientes difíciles. En este sentido se hace necesaria una perspectiva integradora que nos permita comprender la complejidad del proceso por el que un profesional decide abandonar su puesto de trabajo.

Physician turnover is one of the most critically important issues now facing health care sector worldwide. In 2001, Buchbinder and colleagues reported that 55% of primary-care physicians had left at least one practice, and 20% of the cohort left two employers. In Europe, a study made over 1421 Scottish General Practitioners (GPs) (Simoens et al., 2002) found that the proportion of GPs who are likely to leave their current general practice within two years was 11% for GP principles and 38% for GP nonprinciples. In Spain, there is almost no empirical study related to this topic. According to statistical information provided by the Ministry of Labor and Social Affairs (2007), 72% of the workers in the health system changed their job at least once, 69.7% voluntarily, and 30.3% in a compulsory manner. In addition to the institutional costs associated with primary-care physician turnover (calculated the cost of replacing an individual physician in general/family practice as 24.5 million dollars, 22.3 million dollars for general internal medicine, and 22.2 million dollars for pediatrics (Buchbinder et al., 1999), other consequences of turnover are the added stress on the staff, and the lesser quality of care that the patient receives, hindering the physicians' ability to meet workload demands and provide consistent patient care (Buchbinder et al., 2001).

The present study aims to gain a better understanding of the turnover process by examining the stress-burnout-turnover linkage, addressing two additional factors: doctor-patient interactions as an emerged key factor on physician stress; and physician commitment as a key personal resource in order to prevent burnout. Moreover, draws on the work of Lazarus (e.g., Lazarus & Folkman, 1984), we assume that difficult doctor-patient interactions could be appraised as hindrances or challenges depending on the commitment level. According to the reviewed literature, no data exists which looks from: (a) an interpersonal perspective considering doctor-patient

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interactions to understand stress-strain-turnover linkage among physicians, and (b) the moderator role of commitment as a personal resource along this process.

#### Literature review

# Turnover intentions and physician turnover

Turnover is viewed as a voluntary separation of an individual from an organization (Price & Mueller, 1981). It results from a combination of organizational events, working conditions, and psychological factors interacting with each other to affect employee attitudes in and toward the organization (Fang, 2001). However, in this study, turnover intentions and not actual turnover is our dependent variable. Some authors assert that intentions to quit are better predictors of turnover than other attitudinal measures (Krausz et al., 1995). They also argue that studies using intentions as the criterion have distinct advantages over those that use actual turnover as the dependent variable, since behaviors are often influenced by a host of other variables (e.g., company policies, economic conditions) that cannot be controlled by the researcher. In addition, Mobley and colleagues (1979) reported six studies in which turnover intentions by employees were consistently related to actual turnover. Two meta-analyses estimate the correlation coefficient to be 0.50 (Steel & Ovalle, 1984; Tett & Meyer, 1993) and some studies of physicians have validated this relationship (Buchbinder et al., 2001).

#### The stress-burnout-turnover linkage

Due to several organizational, social and task stressors, feelings of burnout increase, and individuals become incapable of coping with personal and interpersonal demands (Fusilier & Manning, 2005; Leiter, 1992). When professionals experience burnout, and feel unable to continue their work in a meaningful way, they are more likely to consider quitting (Jackson, Schwab, & Schuler, 1986). Several recent studies demonstrated a significant increase in the level of physician stress and physician burnout (e.g., Landon et al., 2002), raising the possibility that physicians may be giving up clinical practice prematurely, and highlighting the need for further research in this area (Zhang & Feng, 2011).

#### The commitment role

However, even though a statistically significant relationship has been established between stress and negative outcomes like turnover intentions (Holmes & Masuda, 1974), some individuals tend to maintain wellness even in extremely stressful circumstances (O'Driscoll & Cooper, 1994). A growing number of studies have been directed at examining potential moderators of the stressoutcome relationship, especially in the area of occupational stress and burnout (Cooper & Bramwell, 1992). One potential moderator of the stress-outcome relationship is organizational commitment (*e.g.* Mathieu & Zajac, 1990). However, literature offers inconsistent findings about a mediator or moderator effect of organizational commitment on these processes (Cohen, 1998; Podsakoff et al., 2007; Reilly, 1994).

The emerging positive psychology emphasizes the relative importance that positive personal strengths can have on human performance (Schaufeli & Bakker, 2004). Rooted in developments by Lazarus and Folkman (1984), and the theoretical model of personal resources to explain the Job Demands-Resources (JD-R) model of burnout (Xanthopoulou et al., 2007), the broader concept of commitment, as defined by Kobasa (1979) emerges (Kobasa-Ouellette & Di Placido, 2001). Commitment as a personal resource protects individuals from the negative effects of stress because it enables them to attach direction and meaning to their work (Hobfoll et al., 2003). Without such commitment, a valuable source of protection from stress and its consequences would not be available. Antonovsky (1979) has argued that commitment is therefore a crucial resource that enables individuals to resist the effects of stress and strain in their organizational environments. However, its effect appeared barely studied on physicians compared to other health professions like nurses (Garrosa, Moreno, Rodríguez-Muñoz, & Rodríguez-Carvajal, 2011; Ríos, Sánchez, & Godoy, 2010).

# The physician-patient relationship

On the other hand, a factor which has been scantly studied in the literature related to employees' turnover intentions is the effect of the recipients of their work. Specifically, it seems strange that research on physician turnover has neglected this aspect, knowing the importance of patients not only on the physicians' job identity, but also the impact of emotional demands and positive or negative patient interactions on physicians' well-being (Wallace & Lemaire, 2007). Between 10-20% of the patients provoke a level of physician distress and difficult relations (Hahn, 2001). If stress and burnout are extensively studied in relation to turnover and turnover intentions (Ducharme et al., 2008), it also seems necessary to study the effect of handling difficult doctor-patient interactions on this process.

In order to integrate this social interaction perspective with the theoretical developments linking stressors to physician burnout and turnover intentions, we may consider the commitment role to explain the effect of handling difficult doctor-patient interactions on intentions to quit. In essence, commitment may influence this new dimension of difficult doctor-patient interactions by affecting the appraisal process, *i.e.* one's perceived ability to cope with it in a stressful environment, and its relation with the turnover intentions outcome. In this context, commitment emerges as a key factor to understand how difficult doctor-patient interactions differently affect the burnout-turnover intention process depending on levels of this personal resource.

According to the development of the theoretical framework hereinafter, Fig. 1 illustrates the theoretical model which was tested. The causal chain on which the model focuses ranges from the exogenous variable job stressors and difficult doctor-patient relationships through burnout, moderated by commitment, and eventually to turnover intentions. In this sense, the main aim of this study was to test the interaction effects of commitment (twoway interaction) and handling difficult doctor-patient relationships (three-way interaction) on the stress-burnout-turnover intentions linkage.

### Methods

# **Participants**

Participants were 485 physicians who filled out the survey, resembling the overall area population: 258 males (53.8%) and

222 females (46.3%), with a mean age of 44.3 years (SD= 7.8), 18.3 years of experience (SD= 8.5), and 12.2 years of seniority (SD= 8.1%). Most of the participants (60.8%) spent more than 80% of their working time interacting with patients, attending an average of 26 patients daily. About 54.8% of the physicians had a master's degree, and 36.3% had a doctorate degree. Participation was voluntary and anonymous, no incentives were offered to the participants, and all of them singed an informed consent. The questionnaire was applied to a randomly stratified sample of the primary-care centers and hospitals of the Community of Madrid, with a response rate of 33.40% for primary-care physicians, and 66.60% for specialized ones.

#### Instruments

Following the recommendations of Schaufeli and Enzman (1998), a specific measure of the physician burnout process was used. Job stressors, burnout, difficult doctor-patient relations, commitment, and physician turnover intentions were assessed using the Physician Burnout Questionnaire (PBQ) (Moreno-Jiménez, et al., 2006). All subscales of this instrument ask respondents to indicate their level of agreement using a 4-point Likert-type scale ranging from 1 (*totally disagree*) to 4 (*totally agree*). A reliability analysis of these subscales revealed good internal consistency (see Table 1).

The subscale of *job stressors* includes 20 items related to management and supervision, timing pressure, social pressure, social deterioration of the profession, and experience with pain and death.

The Burnout subscale gathers several aspects of physician burnout according to specialized literature (e.g., Arnetz, 2001; Shirom, 2003). In this sense, the first dimension, *exhaustion* included emotional, cognitive, and physical exhaustion. *Distancing* referred not only to an impersonal response toward recipients (depersonalization), but also negative attitudes about the practice environment and the profession's image (Maslach et al., 1996). *Unmet expectations* gather other concepts of burnout literature like disillusionment (Edelwich & Brodsky, 1980) or loss of hope (Pines et al., 1981).

The rest of the subscales *difficult doctor-patient relations*, *commitment*, and *turnover intentions* were assessed through a fouritem subscale each one.

# Data analyses

Descriptive analyses were carried out to examine the independent variables and turnover intentions. Independent variables included



Figure 1. Theoretical model

in the model were the sociodemographic variables, job stressors, difficult doctor-patient relationships, commitment as a personal resource, and burnout (exhaustion, distancing and unmet expectations). Pearson product-moment correlation coefficients were computed to examine the intercorrelations among the study variables. Hierarchical and stepwise multiple regressions were conducted to identify the main and interaction effects on turnover intentions. The interaction effect was analyzed by calculating the cross-product terms of the independent variables. Before testing the interactions, we analyzed the hypothesis of homocedasticity, independence, and collinearity. To explore the homocedasticity (homogeneity of variance), we looked at the scatter diagrams of standardized residuals against prognosticated standardized values, and they did not show any deviation in form. Further, the selected models appear to be valid because these graphics did not show any regular shape. Independence was tested by the Durbin-Watson statistic, which uses residuals. The Durbin-Watson statistic should be between 1.5 and 2.5 for independent observations. In addition, effect sizes of each significant interaction were analyzed.

Then, the variables were entered in the regression equation hierarchically, starting with the control variables (Step 1), followed by job stressors (Step 2), difficult doctor-patient relationships (Step 3), the personal resource commitment (Step 4), the three dimensions of burnout (Step 5), and finally, the two-way interactions (Step 6) and three-way interactions (Step 7) between difficult doctorpatient relationships, commitment, and the three dimensions of burnout. All variables were grand-mean centered (i.e., the overall mean was subtracted from the values of a variable), to avoid possible problems with multicollinearity. When interaction effects were significant, specific regression equations were estimated for turnover intentions when individuals were scoring one standard deviation below and one standard deviation above the mean of the interaction variables in order to obtain a graphical depiction of the interaction (Aiken & West, 1991). The differences between the slopes were tested with the formulas provided by Dawson and Richter (2006) for continuous variables.

#### Results

Table 1 shows the descriptive statistics and the intercorrelations of the variables.

The central focus of our aim was on the interaction effects of commitment, difficult doctor-patient relations, and burnout on turnover intentions. To detect any interaction effects, the variables were entered into the equation following the recommendations of Aiken and West (1991).

The first step involved educational level (bachelor, master and doctor's degree) as the only sociodemographic variable significantly and negatively related to turnover intentions according to the realized univariate test ((F(5,131)=7.167, p<0.001). In the second step, a global dimension of job stressors was entered showing a significant and positive contribution to turnover intentions as predicted. The third step included the social interaction variable, that is, difficult doctor-patient relationships with a positive and significant contribution. In the fourth step, the personal resource commitment was related significantly and negatively to turnover intentions. In the fifth one, the three dimensions of burnout were significantly related to a greater intention to quit. In the sixth step, the four two-way interaction terms between commitment as the theoretical moderator variable with the difficult doctor-patient

relationships and the three dimensions of burnout were entered. This step showed two of the four possible interactions as significant ones: commitment as a moderator of the relationships between both exhaustion and distancing on turnover intentions. The sample size of this study (n= 480) was sufficient to detect a small-effect size in this step (alpha 0.05, power 0.770,  $\lambda$ = 7.310). As shown in Fig. 2, exhaustion was positively related to turnover intentions for those lower in commitment (t= 5.989, p<0.000); this relationship was weakened for physicians who were higher in commitment (t= 2.435, p<0.05). These simple slopes were significantly different (t= -2.304, p<0.05). On the other hand, the positive relationship of distancing and turnover intentions was significant for those with a high commitment (t= 4.888, p<0.000), whereas it did not

differ significantly from zero for those with low commitment (t= 1.210, ns.). Therefore, physicians who reported lower levels of commitment obtained higher levels of turnover intentions, regardless of the level of distancing. These simple slopes were also significantly different (t= 2.919, p<0.005).

Finally, in the seventh step, the three three-way interactions were entered. In addition, the three-way interactions added significant extra variance to the model. The sample size of this study (n= 480) was also sufficient to detect a small-effect size (alpha 0.05, power 0.842,  $\lambda$ = 8.798). The strongest three-way interaction was the one including unmet expectations. As shown in Fig. 3, among those lower in commitment, unmet expectations was stronger related to turnover intentions when difficult doctor-patient relationships

Table 1   Means, standard deviations, reliabilities, and intercorrelations of the study variables											
Variables	М	SD	Alpha	1	2	3	4	5	6		
1. Job stressors	2.962	.420	.730								
2. Difficult doctor-patient rel.	2.527	.584	.660	.300***							
3. Commitment	2.748	.523	.780	318***	248***						
4. Exhaustion	2.086	.705	.830	.369***	.357***	537***					
5. Distancing	2.034	.556	.710	.306***	.291***	602***	.533***				
6. Unmet expectations	2.672	.528	.900	.495***	.227***	293***	.353***	.402***			
7. Turnover intentions	2.117	.857	.920	.344***	.210***	540***	.561***	.515***	.340**		
* = < 0.50; ** = < 0.10; *** = < 0.01											

\* p<.050; \*\* p<.010; \*\*\* p<.001

Table 2   Standardised beta coefficients from linear regression analyses on turnover intentions										
Variables	Turnover intentions									
N= 485	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Tolerance	VIF	
Standardized coefficients Step 1: Controls										
Education level	152**	134**	127**	082*	071*	076*	076*	.945	1.059	
Step 2: Antecedents		251***	220***	105***	005*	105*	001*	640	1.541	
		.551****	.520	.195****	.093*	.105*	.091*	.049	1.041	
Step 3: Interaction Difficult doctor-patient relation			.183**	.030	049	046	010	.667	1.499	
Step 4: Personal resources								101		
Commitment				462***	244***	244***	266***	.491	2.036	
Step 5: Burnout					250444	264444	050***	570	1.540	
Exhaustion Distancing					.279***	.264*** 189***	.273***	.572	1.748	
Unmet expectations					.176**	.163**	.125**	.658	1.521	
Step 6: Two-way interactions										
Commitment $ imes$ difficult interaction						013	030	.649	1.540	
Commitment $\times$ exhaustion						133*	138*	.360	2.780	
Commitment × distancing						.167**	.192**	.440	2.250	
Commitment × unmet expectations						.024	.001	.626	1.597	
Step 7: Three-way interactions										
Commitment $\times$ difficult interaction $\times$ exhaustion							025	.280	3.571	
Commitment × difficult interaction × distancing							050	.285	3.509	
Commitment $\times$ difficult interaction $\times$ unmet expectations							.181***	.472	2.117	
Adjusted R <sup>2</sup>	.021	.142	.198	.381	.469	.480	.501			
R <sup>2</sup> change	.023**	.123***	.058**	.183***	.091***	.015*	.018**			
* p<.050, ** p<.010, *** p<.001										

were low (Slope(1):t= 2.966, p<0.005), with no significant results when difficult doctor-patient relationships were high (Slope(2):t= -0.948, ns). These simple slopes were significantly different (t= -3.462, p<0.001).

On the other hand, among those higher in commitment, unmet expectations was stronger related to turnover intentions when difficult doctor-patient relationships were high (Slope(4):t= 2.122, p<0.05), with no significant results when difficult doctor-patient relationships were low (Slope(3):t= 0.039,ns). However, these simple slopes were not significantly different (t= 1.472, ns). We then explored whether additional slope differences could be found by applying the slope difference test (Dawson & Richter, 2006).



Figure 2. Two-way interaction between commitment and exhaustion (a) or distancing (b) predicting turnover intentions



Figure 3. Three-way interaction between difficult doctor-patient interaction, commitment and unmet expectations predicting turnover intentions

Two of the four remaining slope comparisons were significant; so were, among those lower in difficult doctor-patient relationships, the slope for low commitment (1) differed significantly from the slope for high commitment (3) (t= -2.047, p<0.05). In addition, among those higher in difficult doctor-patient relationships, the slope for low commitment (2) differed significantly from the slope for high commitment (4) (t= 2.360, p<0.05).

# Discussion

The objective of this study was to gain a better understanding of the stress-burnout-turnover intention process by examining the differential effect of handling difficult doctor-patient interactions on physicians depending on their level of commitment. Empirical research from Western and Eastern countries has indicated that turnover intentions are an outcome of stress and burnout (e.g., Kemery et al., 1985; Williams et al., 2001). The current study confirmed this linkage and showed that job stress, and moreover burnout, are important factors in the physician profession and lined to a higher turnover intentions among doctors. This conclusion stands even when other antecedents of turnover, such as commitment, sociodemographic variables, or difficult doctorpatient interactions, were taken into account. In addition, consistent with other health professional studies (e.g., Gormley & Kennerly, 2011), commitment was also a significant predictor of turnover intention. As commitment wears down, a person is likely to engage in possible job search behavior either in the present or in the near future. The conservation of the resources theory of stress (Hobfoll & Freedy, 1993) provides a framework for understanding these main effects. The theory suggests that burnout occurs when certain valued resources are lost, are inadequate to meet demands, or do

not yield the anticipated returns. The theory also states that certain behavioral and attitudinal outcomes are likely to occur as a result of resource loss and burnout. These major outcomes include turnover intentions, among others (Richardsen & Burke, 1993). Based on this theory, both Lee and Ashforth (1996), and Alarcon (2011) meta-analyses also posited that outcomes reflecting withdrawal tendencies and turnover intentions were related to emotional exhaustion and depersonalization. On the other hand, the view that commitment may be an effective predictor of work outcomes has its roots in the literature. In a recent meta-analyses study of 183 independent samples, Podsakoff and colleagues (2007) obtained job commitment as a notable antecedent of withdrawal behavior (e.g., absenteeism, tardiness), turnover intentions, and turnover.

According to the interaction effects, on the whole these results support the argument that differences in commitment lead to differences in the way physicians perceive job, interpersonal, and chronic stress. In this research it was found that exhaustion and turnover intentions were more positively associated for physicians with lower commitment, and weakened for those higher in commitment. On the other hand, for those with low commitment, physicians obtained high levels of turnover intentions regardless of the level of distancing, whereas physicians who reported higher levels of commitment obtained higher levels of turnover intentions when the level of distancing was high. These results support the argument that certain resources are differently associated with each of the burnout dimensions (Lee & Ashforth, 1996). We may analyze them at the light of the conservation of resources theory and commitment as a personal resource. In this sense, when workers feel they no longer have resources to handle the stressors (they do not feel committed) distancing is directly linked to turnover intentions, whereas having resources may help to overcome the need for distancing (as a defensive strategy).

Finally, we found a three-way interaction effect between unmet expectations, difficult doctor-patient interactions, commitment, and turnover intentions. These results showed that difficult doctorpatient interactions and commitment become two pivotal axes that make unmet expectations rotate from having no impact on turnover intentions to playing a role to determine the level of it. Specifically, it was found that the tendency for unmet expectations to be more strongly and positively related to turnover intentions for those with low commitment was supported in low difficult doctorpatient interactions, but not with those with high levels. In this last condition, when people do not feel job commitment, the recipients of their work play a significant role in their job expectations, in sense that the effect of unmet expectations is embedded by handling high difficult doctor-patient interactions. We drew on the work of Lazarus (e.g., Lazarus & Folkman, 1984) and assume that these difficult interactions are perceived by uncommitted physicians as threats and hindrances that directly led to the highest levels of turnover intentions.

On the other hand, the positive relationship between unmet expectations and turnover intentions was weaker for those with higher commitment; this buffering effect was stronger for physicians handling higher levels of difficult doctor-patient interactions. Committed physicians who reported high levels of difficult doctor-patient interactions are less likely to perceive these interactions as threats (Podsakoff et al., 2007) and consequently, levels of unmet expectations play the significant role in determining turnover intentions, whereas handling low levels of difficult doctor-patient interactions makes being committed emerge as a significant role that sidelines the effect of unmet expectations. Following the expectancy theory (Vroom, 1964) this differential appraisal is translated to different effects on turnover intentions, and driven by effects of burnout. In the sense, even difficult doctor-patient interactions are not always hindrances, but are being regarded as challenges that prevent turnover intentions for committed physicians, adding a new shape on doctor-patient literature. Probably, both commitment and difficult doctor-patient interactions are closely linked to the inherent properties of the *helping role* embedded in physician's identity, allowing us to reframe these results in specialized literature.

The findings reported here raise a number of important questions for future research. One important avenue would focus on patient interactions. For example, researchers might attempt to identify the main personal and interpersonal characteristics that prevent an uncommitted physician from harboring the desire to give up. Those characteristics might include positive psychological capital, selfregulation processes and psychological flexibility among others (Rodríguez-Carvajal et al., 2010), that provide physicians with more resources to handle these interactions effectively. An examination of a multimethod research approach is another important avenue for future research. For example, one could examine the feedback loop of the physician's emotional management and self-regulation processes, analyzing its impact on colleagues and patients, and how their reaction affects the physician's turnover intentions. Other interpersonal variables such as rapport effects may also be included in future research for deeper insight into crossover effects of handling difficult patients not only on job outcomes, but also on physical and psychological ones.

Some limitations of this study should be noted. First, while any generalization of this study's findings to other professionals requires caution, some differences that have discovered between the groups are quite consistent with the differences of commitment described earlier (Mathieu & Zajac, 1990). The cross-sectional design is also limited because of its inability to determine causal effects. However, due to the nature of the variables involved, a cross-sectional design was used in the study. This study focused more on the effects of burnout as a global and chronic quality over a period of time, rather than tracing how burnout interacts with outcome variables over a single event. Finally, another limitation of the study is the potential biases from the common methods variance in the self-report measures used. The existence of common methods variance generally distorts results by inflating correlations among measures. However, when the sample size and the reliability of measures are adequate, true interaction effects are not obscured by the common methods variance. Therefore, although the correlation shown in Table 1 may be somewhat high, the central aims in this study (i.e., the interaction effects) remain adequately tested by the self-report measures.

In conclusion, these findings jointly provide important insights into the turnover intention process. More significantly, these findings suggest that both personal and interpersonal variables influence the way physicians perceive strain effects. As a consequence, the strain-turnover linkage is complex and multifaceted with both transactional and relational components. The findings presented here suggest that an integrated perspective, rather than a diametrical one, will allow comprehending the complexity of a physician's turnover intentions.

The present findings contribute to an understanding of the motivational process in preventing turnover. A dominant theme

or assumption in much of the literature on turnover is that commitment has a unilateral negative effect, and that difficult patients have a positive effect. The present study suggests that in the case of turnover intentions, we must acknowledge the influence of the broader concept of commitment – a personal resource within

which interpersonal and chronic stress is put into perspective. Possibly, a more realistic aim would be to continue blending the number of angles of the personal and interpersonal prism to arrive at a more comprehensive lens in which to view turnover research and physicians' well-being.

#### References

- Aiken, L.S., & West, S.G. (1991). Multiple regression: Testing and interpreting interactions. Thousand Oaks, CA, US: Sage Publications, Inc.
- Alarcon, G.M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, 79, 549-562.
- Antonovsky, A. (1979) Health, stress and coping. Jossey-Bass: San Francisco.
- Arnetz, B.B. (2001). Psychosocial challenges facing physicians of today. Social Science & Medicine, 52(2), 203-213. DOI: 10.1016/S0277-9536(00)00220-3.
- Buchbinder, S.B., Wilson, M., Melick, C.F., & Powe, N.R. (1999). Estimates of costs of primare care physician turnover. *The American Journal of Managed Care*, 5(11), 1431-1438.
- Buchbinder, S.B., Wilson, M., Melick, C.F., & Powe, N.R. (2001). Primary care physician job satisfaction and turnover. *The American Journal of Managed* 7(7), 701-713.
- Cohen, A. (1998). An examination of the relationship between work commitment and work outcomes among hospital nurses. *Scandinavian Journal of Management*, 14(2), 1-17. DOI: 10.1016/S0956-5221(97)00033-X.
- Cooper, C.L., & Bramwell, R.S. (1992). Predictive validity of the strain components of the Occupational Stress Indicator. *Stress Medicine*, 8(1), 57-60. DOI: 10.1002/smi.2460080108.
- Dawson, J.F., & Richter, A.W. (2006). Probing three-way interactions in moderated multiple regression: Development and application of a slope difference test. *Journal of Applied Psychology*, 91, 917-926. DOI: 10.1037/0021-9010.91.4.917.
- Ducharme, L.J., Knudsen, H.K., & Roman, P.M. (2008). Emotional exhaustion and turnover intention in human service occupations: The protective role of coworker support. *Sociological Spectrum*, 28(1), 81-104. DOI: 10.1080/02732170701675268.
- Edelwich, J., & Brodsky A. (1980). Burnout: Stages of disillusionment in the helping professions. New York: Human Science Press.
- Fang, Y. (2001). Turnover propensity and its causes among Singapore nurses: An empirical study. *International Journal of Human Resource Management*, 12(5), 859-871. DOI: 10.1080/09585190110047875.
- Fusilier, M., & Manning, M.R. (2005). Psychosocial predictors of health status revisited. *Journal of Behavioral Medicine*, 28(4), 347-358. DOI: 10.1007/s10865-005-9002-y.
- Garrosa, E., Moreno, B., Rodríguez-Muñoz, A., & Rodríguez-Carvajal, R. (2011). Role stress and personal resources in nursing: A cross-sectional study of burnout and engagement. *International Journal of Nursing Studies*, 48(4), 479-489.
- Gormley, D.K., & Kennerly, S. (2011). Predictors of turnover intention in nurse faculty. *The Journal of Nursing Education*, 50(4), 190-196.
- Hahn, S.R. (2001). Physical symptoms and physician-experienced difficulty in the physician - patient relationship. *Annals of Internal Medicine*, 134(9), 897-904.
- Hobfoll, S.E., & Freedy, J. (1993). Conservation of resources: A general stress theory applied to burnout. In W.B. Schaufeli, C. Maslach & T. Marek, *Professional burnout: Recent developments in theory and research*. Philadelphia, PA, US: Taylor & Francis.
- Hobfoll, E.E., Johnson, R.J., Ennis, N., & Jackson, A.P. (2003). Resource loss, resource gain, and emotional outcomes among inner city women. *Journal of Personality and Social Psychology*, 84(3), 632-643. DOI: 10.1037/0022-3514.84.3.632.
- Holmes, T.H., & Masuda, M. (1974). Life change and illness susceptibility. I B.S. Dohrenwend & B.P. Dohrenwend, *Stressful life events: Their nature and effects*. Oxford, England: John Wiley & Sons.

- Jackson, S.E., Schwab, R.L., & Schuler, R.S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology*, 71(4), 630-640. DOI: 10.1037/0021-9010.71.4.630.
- Kemery, E.R., Bedeian, A.G., Mossholder, K.W., & Touliatos, J. (1985). Outcomes of role stress: A multisample constructive replication. Academy of Management Journal, 28(2), 363-375. DOI: 10.2307/256206.
- Kobasa, S.C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal Personality and Social Psychology*, 37, 1-11. DOI: 10.1037/0022-3514.37.1.1.
- Kobasa-Ouellette, S.C., & Di Placido, J. (2001). Personality's role in the protection and enhancement of health: Where the research has been, where it is stuck, how it might move. In Baum, E., Revenson, T.A., & Singer, J.E. (Eds.), *Handbook of health psychology*. Mahwah, NJ: Erlbaum, pp. 175-193.
- Krausz, M., Koslowsky, M., Shalom, N., & Elyakim, N. (1995). Predictors of intentions to leave the ward, the hospital, and the nursing profession: A longitudinal study. *Journal of Organizational Behavior*, 16(3), 277-288. DOI: 10.1002/job.4030160308.
- Landon, B.E., Aseltine, R.J., Shaul, J.A., Miller, Y., Auerbach B.A., & Cleary P.D. (2002). The evolving dissatisfaction among primary care physicians. *American Journal of Managed Care*, 8(10), 890-901.
- Lazarus, R.S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.
- Lee, R.T., & Ashforth, B.E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81(2), 123-133. DOI: 10.1037/0021-9010.81.2.123.
- Leiter, M.P. (1992). Burnout as a crisis in professional role structures: Measurement and conceptual issues. Anxiety, Stress & Coping: An International Journal. Special Issue: Occupational stress, psychological burnout and anxiety, 5(1), 79-93. DOI: 10.1080/10615809208250489.
- Mathieu, J.E., & Zajac, D.M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin*, 108(2), 171-194. DOI: 10.1037/0033-2909.108.2.171.
- Maslach, C., Jackson, S.E., & Leiter, M.P. (1996). Maslach Burnout Inventory Manual. 3rd ed. Palo Alto: Consulting Psychologists Press.
- Ministry of Labour and Social Affaire (2007). Encuesta de Calidad de Vida en el Trabajo Año 2006. Madrid: Subsecretaría de Trabajo y Asuntos Sociales Secretaría General Técnica. Subdirección General de Estadísticas Sociales y Laborales del Ministerio de Trabajo y Asuntos Sociales de España.
- Mobley, W., Griffith, R.W., Hand, H.H., & Meglino, B.M. (1979). Review and conceptual analysis of the employee turnover process. *Psychological Bulletin*, 86, 443-522. DOI: 10.1037/0033-2909.86.3.493.
- Moreno-Jiménez, B., Gálvez, M., Garrosa, E., & Mingote, JC. (2006). New proposals for evaluating burnout: The specific evaluation of professional medical burnout. *Atencion Primaria*, 38(10), 544-549.
- O'Driscoll, M.P., & Cooper, C.L. (1994). Coping with work-related stress: A critique of existing measures and proposal for an alternative methodology. *Journal of Occupational and Organizational Psychology*, 67(4), 343-354.
- Podsakoff, N.P., LePine, J.A., & LePine, M.A. (2007). Differential challenge stressor-hindrance stressor relationships with job attitudes, turnover intentions, turnover, & withdrawal behavior: A meta-analysis. *Journal of Applied Psychology*, 92(2), 438-454. DOI: 10.1037/0021-9010.92.2.438.
- Price, J.L., & Mueller, C.W. (1981). Professional Turnover: The case of nurses. New York: SP Medical & Scientific Books.

- Reilly, N.P. (1994). Exploring a paradox: Commitment as a moderator of the stressor-burnout relationship. *Journal of Applied Social Psychology*, 24(5), 397-414. DOI: 10.1111/j.1559-1816.1994.tb00589.x.
- Richardsen, A.M., & Burke, R.J. (1993). Occupational stress and work satisfaction among Canadian women physicians. *Psychological Reports*, 72(3), 811-821.
- Ríos, M.I., Sánchez, J., & Godoy, C. (2010). Hardy personality, selfefficacy, and general health in nursing professionals of Intensive and Emergency Services. *Psicothema*, 22(4), 600-605.
- Rodríguez-Carvajal R., Moreno-Jiménez B., de Rivas-Hermosilla S., López-Bejarano, A., & Sanz-Vergel, A.I. (2010). Positive Psychology at Work: Mutual gains for individuals and organizations. *Journal of Work and Organizational Psychology*, 26(3), 235-253.
- Schaufeli W.B., & Enzmann, D. (1998). The burnout companion to study and practice: A critical analysis. London: Taylor & Francis Ltd, 1998.
- Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal* of Organizational Behavior, 25(3), 293-315. DOI: 10.1002/job.248.
- Shirom, A. (2003). Job-related burnout: a review. In Quick, J.C., Tetrick, L.E., editors, *Handbook of occupational health psychology*. Washington: American Psychological Association; pp. 245-265.
- Simoens, S., Scott, A., & Sibbald, B. (2002). Job satisfaction, work-related stress and intentions to quit of Scottish. *Scottish Medical Journal*, 47(4), 80-86.

- Steel, R., & Ovalle, N.K. (1984). A review and meta-analysis of research on the relationship between behavioral intentions and employee turnover. *Journal of Applied Psychology*, 69(4), 673-686. DOI: 10.1037/0021-9010.69.4.673.
- Tett, R.P., & Meyer, J.P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analysis based on meta-analytic findings. *Personnel Psychology*, *46*(2), 259-293.
- Vroom, V.H. (1964). Work and motivation. Oxford, England: Wiley.
- Wallace, J.E., & Lemaire, J. (2007). On physician well being You'll get by with a little help from your friends. *Social Science & Medicine*, 64(12), 2565-2577. DOI: 10.1016/j.socscimed.2007.03.016.
- Williams, E.S, Konrad, T.R., Scheckler, W.E., & Pathman, D.R. (2001). Understanding physician intentions to withdraw from practice: The role of job satisfaction, job stress, mental and physical health. *Health Care Management Review*, 26(1), 7-19.
- Xanthopoulou, D., Bakker, A.B., Demerouti, E., & Schaufeli, W.B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14(2), 121-141. DOI: 10.1037/1072-5245.14.2.121.
- Zhang, Y., & Feng, X. (2011). The relationship between job satisfaction, burnout, and turnover intention among physicians from urban stateowned medical institutions in Hubei, China: A cross-sectional study. BMC Health Services Research, 24(11), 235.