

The impact of role stress on workers' behaviour through job satisfaction and organizational commitment

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Dysfunctions in role performance have been associated with a large number of consequences, almost always negative, which affect the well-being of workers and the functioning of organizations. An individual's experience of receiving incompatible or conflicting requests (role conflict) and/or the lack of enough information to carry out his/her job (role ambiguity) are causes of role stress. According to previous theory, role ambiguity and conflict decrease workers' performance and are positively related to the probability of workers leaving the organization. Job satisfaction refers to a positive evaluation of a job, while organizational commitment refers to an employee's attachment to the organization. The affective dimensions of organizational commitment and job satisfaction are considered to be important predictors of turnover intention, absenteeism, and job performance. In the literature, role conflict and ambiguity have been proposed as determining factors of workers' job satisfaction and their commitment towards the organization. The role of job satisfaction and organizational commitment were analysed as variables that should mediate between role ambiguity and conflict and employees' behaviour. The hypotheses were confirmed by means of path analysis carried out with data obtained from a sample of Spanish blue-collar workers employed by a bus company and a water supply company. Role stressors were negatively related to affective commitment mediated through job satisfaction. Affective commitment to the organization exerted a positive influence on performance and reduces the withdrawal behaviour analysed—intention to leave and absenteeism—although the strongest predictor of intention to leave was, in this study, job satisfaction.

Les dysfonctions dans l'exercice du rôle ont été associées à un grand nombre de conséquences, la plupart du temps négatives, sur le bien-être des employés et sur le fonctionnement des organisations. Une expérience personnelle de réception de demandes incompatibles ou conflictuelles (conflit de rôle) et/ou un manque d'informations nécessaires pour l'exercice de l'emploi (ambiguïté de rôle) constituent les principales causes du stress de rôle. D'après la théorie antérieure, le conflit et l'ambiguïté de rôle diminuent le rendement des travailleurs et sont positivement associés à la probabilité que les travailleurs quittent l'organisation. La satisfaction relative à l'emploi correspond à une évaluation positive de l'employé pour son emploi tandis que l'engagement organisationnel réfère à l'attachement que l'employé a envers son organisation. Les dimensions affectives de l'engagement organisationnel et la satisfaction relative à l'emploi sont considérées d'importants éléments prédictifs de l'intention de quitter, de l'absentéisme et du rendement des travailleurs. Dans les écrits, le conflit et l'ambiguïté de rôle ont été proposés comme des facteurs déterminants de la satisfaction relative à l'emploi des employés et de leur engagement envers l'organisation. Une analyse est faite en vue d'examiner le rôle de la satisfaction relative à l'emploi et de l'engagement organisationnel comme variables médiatrices dans la relation entre l'ambiguïté et le conflit de rôle et le comportement des employés. Les hypothèses ont été confirmées par une analyse de chemins causaux (*path analysis*) réalisée avec les données obtenues d'un échantillon de travailleurs cols bleus espagnols employés par une entreprise d'autobus et par une entreprise d'approvisionnement en eau. Les stressors de rôle étaient négativement corrélés avec l'engagement affectif, cette relation étant affectée par la satisfaction relative à l'emploi. L'engagement affectif envers l'organisation exerçait une influence positive sur le rendement et réduisait les conduites de retrait analysées—l'intention de quitter et l'absentéisme—bien que l'élément prédictif le plus puissant de l'intention de quitter soit, dans cette étude, la satisfaction relative à l'emploi.

Las disfunciones en el desempeño de rol han sido asociadas con un gran número de consecuencias, casi siempre negativas, para el bienestar de los empleados y el funcionamiento de las organizaciones. La experiencia personal de recibir peticiones incompatibles o conflictivas (conflicto de rol) y/o de carecer de la

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información suficiente para el desempeño del puesto (ambigüedad de rol) son causas principales del estrés de rol. De acuerdo con la investigación previa, el conflicto y la ambigüedad de rol disminuyen el desempeño de los trabajadores y están positivamente relacionados con el abandono voluntario de la organización. La satisfacción con el trabajo se refiere a la valoración positiva que el empleado hace de su puesto, mientras que el compromiso con la organización se refiere a la vinculación con la empresa. La dimensión afectiva del compromiso y la satisfacción con el puesto son considerados importantes predictores de la intención de abandono, el absentismo y el desempeño de los empleados. En la literatura, el conflicto y la ambigüedad de rol han sido propuestos como predictores de la satisfacción con el trabajo y el compromiso desarrollado hacia la organización. Se analiza el papel de satisfacción con el trabajo y el compromiso con la organización como variables que median entre la ambigüedad y el conflicto de rol con la conducta de los empleados. Las hipótesis se confirman mediante un *path analysis* realizado con los datos obtenidos en una muestra de trabajadores españoles de “cuello azul” pertenecientes a una empresa de autobús y una empresa de abastecimiento de agua. Los estresores de rol están negativamente relacionados con el compromiso afectivo a través de la satisfacción con el trabajo. El compromiso afectivo hacia la organización ejerce una influencia positiva sobre el desempeño y reduce la conducta de abandono analizada—la intención de abandono y el absentismo—aunque el predictor más poderoso de la intención de abandono sea, en este estudio, la satisfacción con el trabajo.

Keywords: Role conflict; Role ambiguity; Organizational Commitment; Job satisfaction; Performance.

Various surveys show that workers feel that it is becoming harder and harder to make a living and they experience greater stress in their work (Ministerio de Trabajo y Asuntos Sociales, 2005; Princeton Survey Research Associates, 1997). This research attempts to analyse how job stress determines employees' attitudes towards their work, and how these attitudes result in behaviour that is dysfunctional for the organizations.

The job insecurity to which workers are subjected is linked to the perception of role conflict and ambiguity (Montgomery, Blodgett, & Barnes, 1996). In the literature, role conflict and ambiguity have been proposed as determining factors of workers' job satisfaction and their commitment towards the organization. They have also been proposed as the direct motivation for workers leaving the organization or for their poor performance. The questions we attempt to answer in this study with respect to these factors are: Do role conflict and ambiguity increase workers' intention to leave the organization? Do role conflict and ambiguity decrease workers' performance? What is the impact of role conflict and ambiguity on work-related attitudes (organizational commitment and job satisfaction)? What is the impact of work attitudes (organizational commitment and job satisfaction) on workers' behaviour (intention to leave, absenteeism, and performance)?

CONCEPTUAL DEVELOPMENT

Cooper and Marshall (1976) suggest five sources of stress at work: intrinsic to the job, role in the

organization, career development, relationship at work, and organizational structure and climate. Though the impact of these sources will change across jobs, occupations, and organizations (Johnson et al., 2005), role conflict and role ambiguity often appear among the main stressors, especially in environments and organizations subject to drastic changes (Antoniou, Davidson, & Cooper, 2003; Moncrief, Babakus, Cravens, & Johnston, 1997; Osca, González-Camino, Bardera, & Peiró, 2003).

Kahn, Wolfe, Quinn, Snoek, and Rosenthal (1964) suggest that role conflict and ambiguity are independent; they admit that the pressure received by the role senders may possibly generate a lack of clarity and that the ambiguity may cause inconsistent demands. However, the authors only obtain a small, positive, nonsignificant correlation between objective role conflict and subjective role ambiguity. In the same way, although these stressors share certain antecedents and consequences, their impact and the way they take shape have been shown to be generally independent (Agarwal, 1999; Yousef, 2002). Other research has found positive correlations between role conflict and ambiguity, with influence in both possible directions (Moncrief et al., 1997; Wetzels, Ruyter, & Bloemer, 2000; Yousef, 2002). Some approaches even suggest that role conflict and ambiguity constitute only one single global factor of stress at work (Cooper & Marshall, 1976; Cooper, Sloan, & Williams, 1988; McGee, Ferguson, & Seers, 1989). We propose that role conflict is positively related to the perception of role ambiguity (H1).

Abundant studies link worker performance to role stressors, but a large majority of authors also

feel that the influence of role stressors on performance is mediated by their impact on workers' attitudes, particularly their organizational commitment and job satisfaction (Jex, Adams, Bachrach, & Sorenson, 2003). Also common is research in which these stressors are related to an increase in turnover and an intention to leave the organization (Udo, Guimaraes, & Igbaria, 1997). In accordance with the above, we maintain that role ambiguity and conflict are positively related to the probability of workers leaving the organization (H2); and that role stressors are negatively related to workers' performance (H3).

Job satisfaction results from the emotional response to the events that employees experience in organizations. Role stress is thus seen as a clear determining factor of job satisfaction (Klein & Verbeke, 1999; Mesenguer & Sánchez, 2003). We propose that role conflict and ambiguity are related to job satisfaction (H4). Organizational commitment is considered to be a mental state that reflects the necessity (affective commitment), the desire (continuance commitment), and/or the obligation (normative commitment) to remain in the organization (Meyer & Allen, 1997). Desire, necessity and obligation comprise the most important traditions within the nature of commitment. We will focus on the affective dimension because it is the one that has most often been related to job stressors (Yousef, 2002). In relation to affective commitment, it has been postulated that role stress hinders the development of this type of loyalty to the organization (Wetzels et al., 2000; Zickar, Gibby, & Jenny, 2003), although this is not always the case (Ko, Price, & Mueller, 1997). The impact of role stress on affective commitment occasionally seems to be mediated by job satisfaction (Hendrix, Ovalle, & Troxler, 1985). The relationship between job satisfaction and organizational commitment has frequently been studied, particularly in turnover models. Although the direction of the relationships between the two constructs has generated controversy, instability and the rapid development of job satisfaction suggests that job satisfaction determines the level of commitment towards the organization, rather than vice versa (Dobrevá-Martínova, Villeneuve, Strickland, & Matheson, 2002). As a result of this evidence we propose that role conflict and ambiguity are related to affective commitment (H5), and that role stressors are negatively related to affective commitment through job satisfaction (H6).

The level of affective commitment towards the organization seems to be a useful predictor of withdrawal behaviour. The less that employees feel

affectively committed to the organization, the more likely they are to move to another organization in search of new opportunities (Meyer, Stanley, Herscovitch, & Topolnysky, 2002; Wasti, 2002). We propose that affective commitment is negatively related to intention to leave (H7).

The relationships between affective commitment and absenteeism have also been abundantly studied. It can be expected that workers who are affectively committed to the organization would be absent from their jobs less often than those with weak affective commitment. This hypothesis has not always been confirmed in the literature, although that seems to be due to problems of an operative definition of absenteeism rather than to an error in the prediction. Thus, the meta-analysis carried out by Meyer et al. (2002) elaborates on the idea that the impact of affective commitment reduces employee absenteeism, especially voluntary absenteeism, and mainly if it is evaluated by their supervisors. We propose that affective commitment is negatively related to employee absenteeism (H8).

Job satisfaction is considered to be an important predictor of turnover and intention to leave. Although some authors feel that its impact is produced through the influence it has on organizational commitment (Netemeyer, Burton, & Johnston, 1995), while others believe the opposite (Bateman & Straser, 1984), it appears that the contribution of the two variables is independent (Tett & Meyer, 1993). Glugston (2000) has investigated the mediating effects of organizational commitment on the relationship between job satisfaction and intent to leave. He found that the impact of job satisfaction on intent to leave was partially mediated by organizational commitment. Our hypothesis is that affective commitment will partially mediate the relationship between job satisfaction and intention to leave (H9).

Workers who have developed an affective link with their organization can be expected to contribute to the achievement of its goals and even to assume a greater number of responsibilities inherent to their work. In order to evaluate the impact of affective commitment on performance, a number of instruments have been used obtaining positive relationships with affective commitment in some cases, but not in others (Meyer et al. 2002; Riketta, 2002). We propose that workers with a high level of affective commitment will also have a higher level of performance (H10).

To sum up, the questions we have asked allow us to formulate a model of theoretical relationships, which can be specified by means of a causal structural model (see Figure 1) and expressed as a network of structural equations. We will use the

LISREL technique to evaluate to what extent the proposed model fits the data.

METHOD

Sample

This study was carried out with the collaboration of a sample of workers from the service industries, who filled out our questionnaires. Data were collected in two organizations in a city in the middle of Spain: a bus company and a water supply company. Of the approximately 745 questionnaires handed out, we ended up with information from 261 workers—35% of those invited to participate. The age range of the total sample of workers was from 16 to 65 years ($M = 35.8$; $SD = 9.4$). Women comprised 13% of the total. Regarding education, 19.8% had studied at university, 43.6% had finished secondary school, and 36.6% had completed primary studies.

Questionnaires were distributed by post. Accompanying each questionnaire was a letter explaining the general purpose of the study and a stamped envelope addressed to the author. Participation in the study was entirely voluntary and anonymity was guaranteed.

Measures

Role stressors. We used a Spanish adaptation of the Role Conflict Scale and Role Ambiguity Questionnaire (Edo et al., 1993) proposed by Rizzo, House, and Lirtzman (1970). The Role Conflict Scale consisted of eight items and was

scored using a 5-point Likert-type scale with 1 = *strongly disagree* and 5 = *strongly agree*. The Role Ambiguity Questionnaire consisted of five items. A 5-point response scale was employed, ranging from 1 = *strongly agree* to 5 = *strongly disagree*. The factor structure of the role stressors scales was studied by means of confirmatory factor analysis to determine which solution is more adequate: unidimensional—all the items are grouped within a single factor—or bifactorial. The results showed the better fit for the bifactorial solution, $\chi^2 = 137.10$; $df = 65$; $RMSEA = .06$; $NFI = .90$; $NNFI = .93$; $CFI = .94$; $GFI = .92$; $AGFI = .89$, than for the unidimensional solution, $\chi^2 = 437.61$; $df = 65$; $RMSEA = .15$; $NFI = .77$; $NNFI = .77$; $CFI = .81$; $GFI = .79$; $AGFI = .71$. The factor analysis of the Role Ambiguity Questionnaire led us to eliminate one item (“I know that I have divided my time properly”) with a factor coefficient lower than .20. Once this item was eliminated, the factorial coefficients of the rest were acceptable, all exceeding .6, and the total explained variance was 52.6%. As to the factor loadings of the items making up the Role Conflict Scale, three of them exceeded .70 and the rest varied between .53 and .60, accounting for 41.7% of the variance. Cronbach’s alpha for role ambiguity was .77 and for the Role Conflict Scale .79. Descriptive statistics and intercorrelations among study variables can be seen in Table 1.

Job satisfaction. We used a Spanish adaptation (González, 1995) of Hackman and Oldham’s General Job Satisfaction (1975), framed within the Job Diagnostic Survey. Hackman and Oldham’s Job Satisfaction questionnaire is an overall measure of the degree of satisfaction and

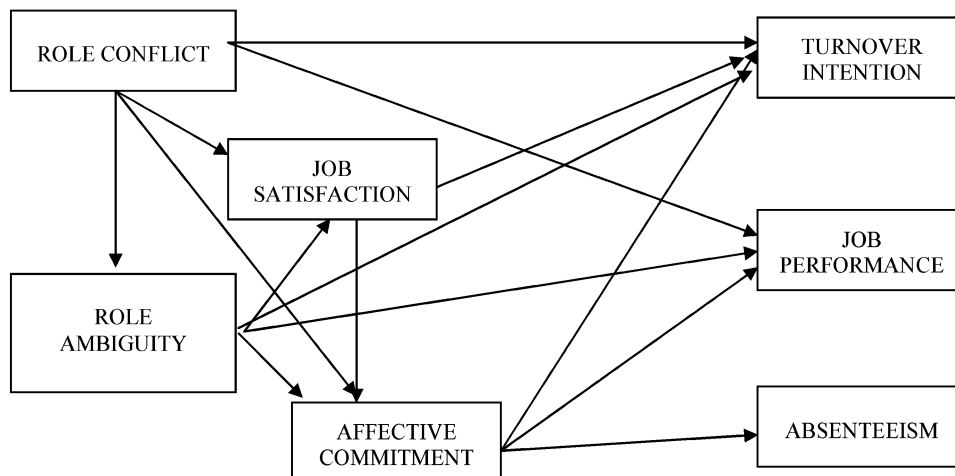


Figure 1. Proposed model.

TABLE 1
Means, standard deviations, reliability, and intercorrelations among study variables

Variable	M	SD	α	1	2	3	4	5	6	7
1. Role conflict	2.66	0.75	.79	–						
2. Role ambiguity	1.84	0.61	.77	–.26**	–					
3. Job satisfaction	4.65	1.27	.80	–.38**	.43**	–				
4. Affective commitment	5.01	1.24	.83	–.20**	.23**	.53**	–			
5. Turnover intention	0.98	0.53	.89	.32**	–.28**	–.63**	–.58**	–		
6. Absenteeism	0.81	3.37	–	.03	–.03	–.08	–.15*	.08	–	
7. Performance	5.92	0.85	–	–.09*	.28**	.19**	.21***	–.16*	–.03	–

* $p < .01$; ** $p < .05$; *** $p < .001$.

happiness that workers feel at their job. It consists of five items, two of which are reverse-scored, with answers on a Likert-type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Cronbach's alpha was .80.

Affective commitment. The degree of affective commitment of the workers who participated in our study was evaluated by means of the Spanish version (González & Romero, 1990) of the Affective Commitment Scale, developed by Meyer and Allen (1984; Allen & Meyer, 1990). It includes seven items with an item format on a Likert-type scale ranging from 1 = *strongly disagree* to 7 = *strongly agree*. Cronbach's alpha was .83.

Intention to leave. The Intention to Leave Scale (Antón, 1999) consists of four items with three different answer scales, all of them with 5 points (e.g., "The probability of leaving my organization in the next months is of ..."; answer scale: 1 = *less than 20% of probability* to 5 = *more than 80% of probability*; "Recently, I have contacted with some company to change work"; answer scale: 1 = *strongly disagree* to 5 = *strongly agree*). Of the four items, two referred to the workers' search for other jobs and two referred to their intention to leave the organization. In order to construct the scale we followed researchers' recommendations to avoid single-item scales and to introduce the evaluation of different cognitions of withdrawal (Tett & Meyer, 1993; Hom, Caranikas-Walker, Prussia, & Griffeth, 1992). A principal component analysis revealed one factor with loadings on the four items exceeding .80. The reliability of the scale was .89 (see Table 1).

Absenteeism. In order to evaluate the absenteeism of the workers participating in our study we used a self-report measure (Antón, 1999) referring to the number of occasions when workers were absent from their job during the previous 3

months. The workers participating in our study were absent from work an average of $M = 0.81$ times ($SD = 3.37$). It is, thus, a low mean and a high standard deviation. However, it is common to find similar statistics since absenteeism is a relatively unusual phenomenon.

Performance. In our questionnaire we have included a single-item scale (Antón, 1999) that asks workers about their productivity. To answer, the workers had to mark a number from 1 to 7, where 1 meant *low productivity* and 7 meant *high productivity*. This item is similar to those offered by Guion (1984), such as graphic scales of performance evaluation. Self-reported measures asking workers about their overall performance are common in the literature (Meyer, Allen, & Smith, 1993; Milkovich & Boudreau, 1994; Saks, 1995).

Analysis

The proposed structural model was tested by path analysis on the basis of the hypotheses formulated. The nomological net of proposed theoretical relations, specified through a causal structural model, will be expressed in a network of structural equations that the LISREL methodology permits us to test. We used the maximum-likelihood estimation offered by the LISREL 8.5 computer program (Jöreskog & Sörbom, 1993).

RESULTS

The fit indices provided by LISREL 8.5 demonstrated the similarity between the observed matrix and the variance-covariance matrix estimated on the basis of the restrictions suggested by the proposed model. Following the hypotheses posited above, we proposed that there is a direct relationship between role conflict and role ambiguity (H1), and between both of them and turnover intention

(H2), job performance (H3), job satisfaction (H4), and affective commitment (H5). The estimated parameters between job satisfaction and turnover intention (H7) and affective commitment (H9) were also free matrix elements. As can be seen in Figure 1, the model proposed a direct influence of affective commitment on turnover intention (H7), on absenteeism (H8), and on job performance (H10). The remaining parameters were fixed.

The χ^2 test of the proposed model was $\chi^2 = 12.30$, $df = 8$, $p = .15$. The root-mean-square residual demonstrated that there were no large differences between the observed and estimated matrix ($RMRS = .039$). The goodness-of-fit index (GFI) reached a value of .99, as did the CFI . The NFI and the $NNFI$ had a value of .98, and the $AGFI$.95. Although the overall fit indices for the proposed model were acceptable, some of the estimated parameters were not significant. Specifically, the lack of significance of the parameters affected path between role ambiguity on intention to leave, role conflict on employees' performance, and role conflict on affective commitment. The rest of the relationships were significant and thus confirmed the hypotheses.

By eliminating the three nonsignificant paths, we obtained the model shown in Figure 2, $\chi^2 = 12.48$; $df = 11$; $p = .33$. Model 2 showed that there was a direct relationship between role conflict and role ambiguity (H1), and between both of them and job satisfaction (H4). Role conflict exerted a direct influence on turnover intention (H2) and role ambiguity on job performance (H3). Job satisfaction had an effect on turnover intention (H7) and on affective commitment (H9). As can be seen in Figure 2, the model proposed a direct influence of affective commitment on turnover intention (H7), on absenteeism (H8), and on job

performance (H10). The chi-square differences between the proposed model and this more restricted model were $\chi^2 = 0.18$, $df = 3$, $p = .98$, $RMRS = .04$, $GFI = .99$, $AGFI = .97$, $NFI = .98$, $NNFI = .99$. The CFI reached its optimum value (1.0).

DISCUSSION

The results showed that role conflict and ambiguity exerted an important influence on the behaviour of workers, either directly or through their attitudes. The deterioration of employee stress could have serious consequences and these consequences could have swiftly become manifest in organizations. Thus, this study reinforced the idea of how important psychosocial stress is for all types of employees, including blue-collar workers, traditionally considered vulnerable only to physical stress (Kim, 2000). Role conflict experienced by employees has been shown to be associated with workers' dissatisfaction with their jobs, and it generated an increase in the ambiguity associated with the role. In addition, it had a positive relation with intention to leave the organization, although it has not been shown to have a negative relation with performance. Coinciding with previous research, the results of this study lead to the conclusion that when employees experience role ambiguity, their performance suffers. In this study, role ambiguity was the main predictor of workers' performance level and job satisfaction. Its direct influence on intention to leave the organization, however, has not been confirmed.

Affective commitment to the organization was revealed to be the factor with higher correlations with workers' behaviour. These correlations were positive

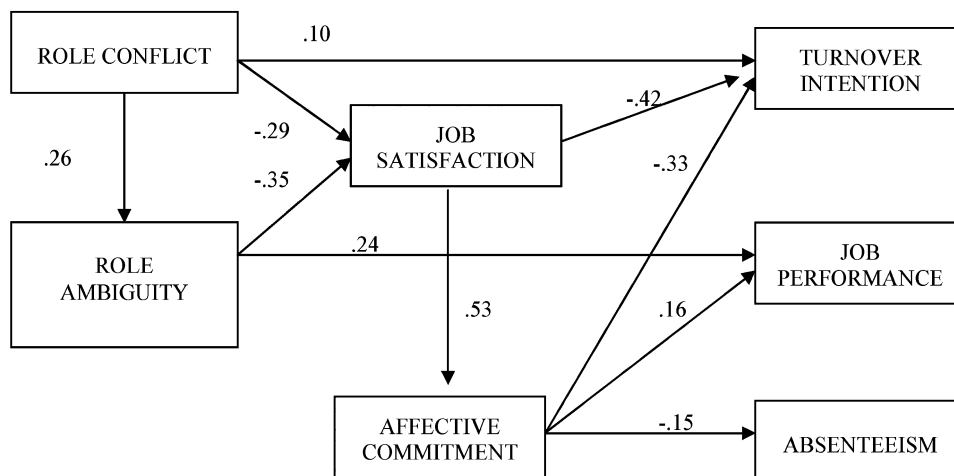


Figure 2. Empirical model (all coefficients λ , $p < .01$).

with performance and negative with the withdrawal behaviour analysed—intention to leave and absenteeism—although the strongest predictor of intention to leave in this study was job satisfaction.

The relationship between organizational commitment and work stress generated some debate. One point of view is that organizational commitment is an antecedent of stress (Johnson & Cooper, 2003; Leong, Furnham, & Cooper, 1996). Others, however, felt that the opposite was true. One of the main conclusions of this study refers to the relationship between affective commitment and one of the sources of work stress. The results of this study demonstrated that role stress did not have a direct effect on workers' affective commitment, but an indirect effect through job satisfaction.

One of the main limitations of this study is the nature of the analyses. The study is not experimental, and no causal conclusion can be drawn from its results. Other features that limit generalization are the use of self-report measures of behaviour, how representative the organizations are, the sample, and the population. Future research should use different samples and design strategies.

We began this study by asking ourselves a series of questions on the effect of role stress on employees' behaviour. According to the results obtained we can state that, as we expected, role conflict and ambiguity not only entail the personal cost of workers' dissatisfaction, but they also have an important effect on the organization's results. The employees who participated in this study and who experienced role stress admitted to a lower level of performance, were more inclined to leave their job, and were less loyal to the organization they worked for. We can thus affirm that the good economic health of an organization depends on the control and prevention of role stress at work.

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