



HAL
open science

Collective efficacy: A resource in stressful occupational contexts

Catherine Esnard, Martine Roques

► **To cite this version:**

Catherine Esnard, Martine Roques. Collective efficacy: A resource in stressful occupational contexts. *European Review of Applied Psychology / Revue Européenne de Psychologie Appliquée*, 2014, 64 (4), pp.203-211. 10.1016/j.erap.2014.05.003 . hal-03918803

HAL Id: hal-03918803

<https://hal.science/hal-03918803v1>

Submitted on 11 Nov 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Running Head: Collective efficacy in stressful contexts

Collective efficacy: a resource in stressful occupational contexts

Catherine Esnard

(University of Poitiers, France)

and

Martine Roques

(University of Poitiers, France)

Catherine Esnard

Département de Psychologie, Université de Poitiers, 99 avenue du Recteur Pineau, F-86022

Poitiers Cedex. France.

Tel : (33) 5 49 45 47 27

Mail: catherine.esnard@univ-poitiers.fr

Martine Roques

Département de Psychologie, Université de Poitiers, 97 avenue du Recteur Pineau, F-86022

Poitiers Cedex. France.

Tel : (33) 5 49 45 32 51

Mail: martine.roques@univ-poitiers.fr

Collective efficacy: a resource in stressful occupational contexts

Key words: collective efficacy, self-efficacy, focused-problem coping, self-determination, interdependence, occupational context.

Abstract

The authors examine whether the superiority of collective efficacy over self-efficacy on performance can also be observed with regard to strategies adopted to cope with stress in occupational context. They compare two groups working in different food service organizations characterized by high perceived stress but differing in their perceived interdependence (fast-food establishments and traditional restaurants). They show that (1) collective efficacy is a better resource against stress than self-efficacy; (2) the relationship between self-efficacy and adaptive strategies is mediated by self-determination, but this mediation is not observed between collective efficacy and adaptive strategies, (3) these results are only observed under high level of perceived interdependence (e.g. fast-food establishments). Managerial implications for mobilizing collective resources to overcome occupational stress are discussed.

The literature clearly shows that self-efficacy does not predict some outcomes as well as collective efficacy: individuals working in interdependence perform better if they have a strong sense of collective efficacy rather than a strong sense of self-efficacy (Gully, Incalcaterra, Joshi, & Beaubien, 2002; Stajkovic & Lee, 2001; Zaccaro, Blair, Peterson, & Zazanis, 1995). Can this superiority of collective efficacy be observed with regard to the coping strategies adopted in stressful occupational settings, in contexts where the nature of the job or the organization are perceived as stressors? The aim of this paper is to examine the effects of collective efficacy and self-efficacy on the adaptive strategies adopted in stressful occupational contexts such that we expected collective efficacy to have higher correlations with problem-solving coping than does self-efficacy. This is a highly relevant question in management, given recent researches suggesting that maladjustment experienced in the workplace is more often generated by the collective environment than by the individual's disposition (Cooper, 1986; Cooper, Dewe, & O' Driscoll, 2001).

According to Lazarus and Folkman (1984)'s transactional theory, the stressful nature of a situation is defined by the individual's perception of an imbalance between the constraints imposed by his or her environment and the resources he or she has to cope with them. The result of this process, namely the coping strategy that is adopted, is the result of an individual cognitive assessment : the person makes "cognitive and behavioral efforts (...) to reduce, minimize, control, or tolerate the internal and external requirements of the person/environment transaction" (Folkman, Lazarus, Gruen, & DeLongis, 1986, p. 572). In other words, the person chooses to concentrate either on the resolution of problem, or on the emotional regulation of the situation.

Among these resources, self-efficacy, a concept originating from Bandura's social cognitive theory (1995, 1997), occupies pride of place. This "belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (Bandura, 1995, p.2) refers to the ability to summon up the motivation, cognitive resources and behaviours required to exert control over life events (Wood & Bandura, 1989). Its efficiency has mainly been highlighted in teachers, in whom strong self-efficacy is associated with a low level of burnout and a coping strategy focused on problem resolution (Chwalisz, Altmaier, & Russel, 1992; Evers, Brouwers, & Tomic, 2002; Van Dick & Wagner, 2001).

In many studies (see Guay, Ratelle, Sénécal, Larose, & Deschênes, 2006), self-efficacy has been investigated in relation to Deci and Ryan's theory of self-determination (1985; 2002; Gagné & Deci, 2005; Vansteenkiste, Lens, & Deci, 2006). A review of the extant literature in the self-determination theory domain is beyond the scope of this paper. However, for our purpose, we underline that in this theory, motivation is linked to the need for self-determination, in that the individual wants to self-organize experience and behavior and wishes to control the environment in order to develop a feeling of competence. In the same way, the greater an individual's self-efficacy, the higher standards that person will set him- or herself and the more efficient the cognitive engagement produced to achieve the goal will be (Walker, Greene, & Mansell, 2006). Consequently, self-efficacy and self-determination are two different but correlated constructs. According to Deci and Ryan's model, the most self-determined form of motivation corresponds to intrinsic motivation, i.e. engagement in an activity for its own sake, for the pleasure and interest that can be derived from it. Extrinsic motivation, on the other hand, drives individuals whose behaviours are guided by instrumental motives, where the activity is of interest not for itself but for its consequences (rewards, salary, social recognition, etc.). Amotivation lies at the opposite end of the self-

determination continuum to intrinsic motivation, characterizing individuals who perform an activity in a mechanical way, without any internal or external control of it. Not only self-determination contributes to people's psychological health and well-being (Deci & Ryan, 2008; Hagger & Chatzisarantis, 2009), but as many studies have shown (Baker, 2004; Boggiano, Shields, & Barrett, 1992; Ntoumanis, Edmunds, & Duda, 2009 ; Ryan, Plant, & O'Malley, 1995), during the perception of a stressful event, it is a personal resource which can promote more efficient coping and thus a less detrimental level of stress for the individual.

However, in all likelihood, the management of stressful events does not rely solely on the activation of personal resources such as self-efficacy or self-determination. An individual may also develop a sense of collective efficacy, defined as “the group's shared belief in their conjoint capabilities to organize and execute the courses of action required to produce given attainments” (Bandura, 1997, p. 708). Collective efficacy should not be confused with team efficacy, which refers specifically to a team of workers, as it can relate to a whole department, or even an entire organization. It also differs from the concept of potency which, according to Shea and Guzzo (1987), refers to generalized beliefs about the broad capabilities of a team in a variety of contexts and tasks, whereas collective efficacy relates to the tasks in a specific setting. Collective efficacy is not simply the sum of the individual group members' self-efficacy, just as high self-efficacy among all the members of a group does not necessarily mean that they will have high collective efficacy beliefs. According to Jex and Bliese (1999), collective efficacy is generally measured as an individual representation related to the perception of the group's performance and the efficacy of the interactions between each of its members, whereas when it is conceptualized as a shared property of the group, a “group power” (Guzzo, Yost, Campbell, & Shea, 1993; Riggs & Knight, 1994), it refers to a

collective representation of the group members. As such, collective efficacy can be considered as a group-level construct (Lent, Schmidt, & Schmidt, 2005) even if we focus on individual beliefs about collective efficacy. Lastly, all reviews of meta-analyses relating to the correlations between collective efficacy and performances (Gully *et al.*, 2002; Stajkovic, Lee, & Nyberg, 2009) attest to the importance of interdependence (i.e. the necessary coordination between group members), insofar as it moderates the relationship between collective efficacy and performances, this is vital for understanding results on the effects of collective efficacy. When tasks require a low level of interdependence, collective efficacy beliefs are less operative. In groups where the achievement of objectives relies partly on the interdependence of their members, collective efficacy is perceived as a resource, just like self-efficacy.

More specifically, the superiority of collective efficacy over self-efficacy regarding the adoption of an efficient coping strategy in a situation perceived as stressful has already been demonstrated. In a longitudinal study of American soldiers, Jex and Bliese (1999) highlighted the distinct moderating effects of self-efficacy and collective efficacy on the relationship between stressors (workload, schedules, type of task) and indicators of felt tension (job satisfaction, organizational engagement, psychological tension and physical symptomatology): self-efficacy tends to reduce felt psychological tension, whereas collective efficacy acts more on the relationships between workload and job satisfaction, and between workload and organizational engagement. Regarding environmental stressors, Homburg and Stolberg (2006) have shown that although self-efficacy is negatively correlated with perceived stress, unlike collective efficacy it does not necessarily predict the adoption of a problem-focused coping strategy, as the environmental problems very probably exceed the self-efficacy capabilities of a single, given individual. Collective efficacy would therefore

appear to strongly determine the type of behaviors that individuals adopt when confronted with a stressful situation, when this situation concerns a group.

To sum up, the objective of this study consists in extending these outcomes to the occupational context : in an occupational setting perceived as stressful, collective efficacy could be expected to play a more important role in effective adaptation to stressful events than self-efficacy, as we can observed about team's performances. Certainly, the group's performance in occupational setting does not display the same dynamics as the strategies adopted to combat stressors. However, these strategies, particularly when they are effective, help to achieve the results expected by the group or team. We can thus suppose that they contribute to the performance if they are effective for this team. Previous research on the question (see Pervin & John, 2001) has revealed that emotion-focused coping strategies like avoidance, emotionalism and wishful thinking are effective in the short term, specifically in health-related and affective outcomes, but they do not contribute to the long-term resolution of the perceived stress, notably in occupational contexts. In compensation, problem-focused coping strategies like planning, increasing effort and management of priorities are efficient under conditions where the person deems the situation to be controllable. Various studies have supported the idea that problem-focused coping strategies are associated with lower levels of chronic stress and greater adaptability in workers (Dorz, Novara, Sica, & Sanavio, 2003; Ogus, 1991). Thus, this study is centred on the problem-focused coping, even if we do not exclude that emotion-focused coping and social support-focused coping can also contribute, to a lesser extent, to the performance and satisfaction of the team.

Like Rascle and Irachabal (2001), who recommend going beyond a purely interactional approach in stress psychology, in order to focus on transactions taking place at the level of the individual's perceptions of his or her environment, we explored the process

that is thought to subtend the relationship between self-efficacy, collective efficacy and problem-focused strategies. So, in the light of current researches, we assume that self-efficacy can constitute a resource for coping with stress, but this relationship can be mediated by self-determination. We chose to explore this mediated relationship because we assume that if self-efficacy need another level of individual motivations like self-determination for coping with stress, by comparison collective efficacy do not need this mediated factor. We therefore gave self-determination the status of mediating variable, in accordance with Baron and Kenny's model (1986, Kenny, 1998), assuming that self-determination mediates the relationship between self-efficacy and problem-focused coping. We did not expect to observe a similar mediating effect between collective efficacy and problem-focused coping, due to the difference in analytical level, for while collective efficacy concerns a group-level construct, self-determination and self-efficacy both correspond to an individual level construct. Furthermore, as collective efficacy requires a degree of interdependence between group members, we can expect its effects to be more marked within groups engaged in tasks requiring high interdependence between their members than within low-interdependence groups with low interdependence.

Occupational contexts and hypothesis

We carried out this study in catering industry, occupational contexts where teams are a predominant way of organizing. We collected data from two sets of food service organizations. On the one hand, data were collected among employees performing tasks requiring a high degree of interdependence, in a context perceived as stressful. The fast-food industry offers some particularly interesting opportunities for studying these dimensions. Although they are assigned different roles (food preparation, customer service, cleaning), the team members all share the common goal of rapid customer satisfaction. Furthermore, these

employees are implicitly valued through the performance of their team. As such, they form a group whose members are interdependent and subjected to considerable stressors. In this study, they will be referred to as “fast-food employees” sample (FFE). On the other hand, data were collected on another sample in order to test the variability of the previous effects in a work context which was quite similar in terms of task and stressors (time pressure, but which required lower interdependence: traditional restaurants. Indeed, employees in traditional catering are more specialized in one kind of task (they work either in cooking or in service) than the employees in fast food industry and are above all valued on their specific skills. They will be referred to as “traditional catering employees” (TCE), henceforth.

However, in these two sets of food service organizations, stressors (time pressure, relations with superiors and with clientele) are under subjectivity : individuals only become aware of it when they perceive a discrepancy between what they should be doing and what they can actually achieve within the allotted time. Accordingly, the stressful nature of the occupational context considered here was measured by an indicator of perceived stress.

In these occupational contexts, and in line with previous researches and our objectives, we expect the following:

Hypothesis 1: In both occupational contexts (FFE and TCE) collective efficacy and self-efficacy will be positively related to problem-focused coping.

Hypothesis 2: In both occupational contexts (FFE and TCE), self-determination will mediate the relationship between self-efficacy and problem-focused coping, but will not mediate the relationship between collective efficacy and problem-focused coping.

Hypothesis 3: In occupational context in which interdependence is high (FFE), collective efficacy will be more positively related to problem-focused coping than self-efficacy will be positively related to problem-focused coping. In occupational context in which interdependence is low (TCE), collective efficacy and self-efficacy will be equally positively related to problem-focused coping.

Hypothesis 4: Relative to jobs in which interdependence is high (FFE), collective efficacy in low interdependence jobs (TCE) will be lesser positively related to problem-focused coping.

Method

Samples characteristics and procedure

In the “fast-food employees” sample (FFE), 53 “team members” employed in the French fast-food industry (30 men and 23 women) since at least six months in the same establishment, recruited at their workplace (three establishments belonging to the same chain, with exactly the same organization) took part in this study. Eighty percent of the participants belonged to a work team of between 5 and 8 people, 20 % worked in a team of less than 5 people. They were told that the study was about the way they perceived their work. All these team members were responsible for serving the customers, preparing the food and keeping the premises clean. The mean age of this sample was 23.33 years (*S.D.* = 4.82; range: 18-43 years) and 86.78% of the participants had qualifications equivalent to or higher than the French baccalaureate. A questionnaire was administered to the participants during their work hours, with the consent of their superiors. The session lasted approximately 30 minutes. The participants and the company were guaranteed that anonymity would be protected.

In the “traditional catering employees” sample (TCE), 103 (64 men and 39 women) in their second year of a training course in the catering sector (69% vocational training certificate, 26% vocational baccalaureate, 5% not known) took part in this study. The mean age of this sample was 18.02 years (*S.D.* = 1.48; range: 16-23 years). All the participants had been employed for at least nine months in the same traditional restaurants, with a mean length of employment of 19 months (*S.D.* = 8.32). Seventy-four percent of the participants belonged to a work team of between 5 and 10 people, 26% worked in a team of less than 5 people. A questionnaire was administered to the participants at their place of training (Catering Training Centre). They were told that the study was about the way they perceived their current jobs. The session lasted approximately 30 minutes. The participants and the company were guaranteed that anonymity would be protected.

Measures

In both research contexts, the same standardized scales were used to assess variables in order to make comparisons.

Perceived stressors and *interdependence* were the subject of preliminary measures, enabling us thereafter to characterize the occupational context in terms of the levels of perceived stressors and perceived interdependence.

Perceived stressors was measured with five questions, translated into French (back-translation procedure), taken from Cohen, Kamarck and Mermelstein’s (1983) Perceived Stress Scale, which includes 14 items in its original version. The choice of these items was made after a pre-test among workers in the fast-food industry, who were instructed to classify the items according to their relevance to their particular work context. The final list was as follows: (1) “Have you felt irritated because of things happening beyond your control?”, (2)

“Have you felt nervous and stressed?”, (3) “Have you felt that difficulties were piling up so high that you could not overcome them?”, (4) “Have you felt that things were going your way?”, (5) “Have you found that you could not cope with all the things that you had to do?”. The research participants were instructed to think about how often they felt stress as a result of their current work. They were told to rate the questions on a five-point scale, ranging from (1) “never” to (5) “often”, except for the inverted item 4, by referring to what had happened to them at work during the previous month. The total score of stressors perceived by each subject was therefore calculated by adding together the item scores.

Interdependence was assessed on the basis of 9 items devised by Campion, Medsker and Higgs (1993; Campion, Papper, & Medsker, 1996), on the basis of research by Guzzo and Shea (1992; Shea & Guzzo, 1987), and covering three dimensions: interdependence relating to the task (e.g. “I cannot achieve my work without information or material provided by the other members of my team”), the occupational goals (e.g. “My objectives are directly related to my team’s objectives”) and the rewards or results (e.g. “The assessment of my performance strongly depends on that of my team”). These items, which were rated on a five-point Likert scale ranging from (1) “I agree completely” to (5) “I disagree completely”, were translated into French (back-translation procedure).

Self-efficacy. This was measured on Jerusalem and Schwarzer’s (1992) Generalized Self-Efficacy Scale, translated into French by Bruchon-Schweitzer (2002). This scale includes ten proposals intended to measure participants’ general self-efficacy, such as (1) “I always manage to solve difficult problems if I persevere”, (3) “It is easy for me to maintain my intentions and achieve my goals”, (8) “When confronted with a problem, I usually find several solutions”. We specified in the instructions that these proposals only related to the reactions of individuals in their current work context. The participants had to indicate their degree of agreement with these various proposals on a four-point scale ranging from “false”

(1 point) to “true” (4 points). The total self-efficacy score for each subject was therefore calculated by adding together the item scores. The higher the total score, the greater the expression of self-efficacy.

Collective efficacy. This was measured by means of a French-language version (back-translation procedure) of Schwarzer, Schmitz and Daytner’s scale (1999), initially intended for teachers. The twelve proposals were adapted to fast-food industry employees. For example, (item 1) “As members of this team, we are able to offer a high standard of service to even the most demanding people because we are all committed to the same goals”, (5) “Our team can come up with creative ways to improve our work environment, even without support from others”, (7) “As team members (or managers), we can learn from our mistakes and setbacks in the restaurant as long as we trust our shared competence”. As in the case of self-efficacy, we specified in the instructions that the twelve proposals solely concerned their current work team. The participants had to express their degree of agreement with the proposal on a four-point scale ranging from “false” (1 point) to “true” (4 points). The overall score of collective efficacy for each subject was calculated by adding together the scores for each item. A high score reflected a strong sense of collective efficacy expressed by each worker.

Self-determination. This was measured using the “Workplace Motivation Inventory” (IMTB) developed by Blais, Brière, Lachance and Vallerand (1992) in a French version. Composed of 31 items answering the question “Why do you do this job?”, it measures the three types of motivation highlighted by Deci and Ryan (1985). More specifically, 12 items relate to the measure of intrinsic motivation (IM)¹, the most self-determined form of motivation, e.g. “Because I greatly enjoy learning new things in this job”. Twelve other items

¹ IM is divided into 3 other subdimensions: Out of 12 IM items, 4 correspond to the “achievement” subdimension (IMac), 4 to “knowledge” (IMk), and 4 to “stimulation” (IMs).

measure extrinsic motivation (EM)², e.g. “For the various social benefits associated with this type of job”. Lastly, amotivation (AM), the least self-determined form of motivation, is measured with 7 items, e.g. “I don’t know, they expect too much of us”. The participants were told to express their degree of agreement on a Likert-type seven-point scale ranging from “Does not correspond to me at all” (1 point), to “Corresponds exactly to me” (7 points). A self-determination index (for a review, see Vallerand and Grouzet, 2001) was then calculated by weighting the scores of each subscale for each of the 3 dimensions, according to their position on the self-determination continuum: The formula used to calculate this self-determination index was as follows: $[2 * ((IM_s + IM_{ac} + IM_k) / 3) + Rid] - [((R_{ij} + R_{ex}) / 2) + (2 * AM)]$. The higher this index, the more self-determined the participant’s motivation, reflecting a strong sense of self-determination.

Coping strategies. We used the French version of the WCC (Ways of Coping Checklist) constructed by Folkman and Lazarus (1980), translated by Cousson-Gelie, Bruchon-Schweitzer, Quintard, Nuissier and Rascle (1996). Ten of the checklist’s 27 proposals measure problem-focused coping (e.g. “I established an action plan and I followed it”; “I took things one by one” ; “I tried not to act in a hasty way or to follow the first idea”), 9 proposals measure emotion-focused coping, and the 8 remaining proposals measure coping focused on social support. The participants were asked to recall a stressful situation which had occurred at work, and to indicate on a four-point scale whether or not they had used the reactions described in the proposals. The scale ranged from “no” (1 point) to “yes” (4 points), except for item 15, which was inverted. To test our hypothesis, only the means of the sums of the items relating to problem-focused coping were used in our analyses.

² EM is also divided into 3 subdimensions, with 4 items for “regulation by identification” (Rid), 4 for “regulation by introjection” (Rij), 4 for “external regulation” (Rex)

Table 1 sets out the indicators of internal consistency for each scale used (Reliability Coefficients measured by Cronbach's alpha). In both samples, reliabilities were judged to be sufficient for the survey research (except quite low reliability for perceived stress scale in TCE).

Insert Table 1 here

The questionnaire administered to the participants comprised a profile sheet intended to collect data such as sex, age, length of employment within the current organization, diploma and the status (student or not) for the FFE sample, followed by the five scales described above³. The order of the scales was partially counterbalanced: half the questionnaires presented the collective efficacy scale before the self-efficacy one and the other half presented the self-efficacy scale before the collective efficacy one.

Analysis and Results

Preliminary analyses

The two samples differed in terms of the level of stress perceived within their current work team, with stress perceived as stronger in the traditional catering sector than the fast-food industry ($M_{fastfood} = 12.58$, $S.D. = 3.82$; $M_{trad.} = 14.17$, $S.D. = 3.24$, $t(144) = 2.66$; $p = .008$).

³ The normality of each scale was checked using the Kolmogorov-Smirnov test: all the scales displayed normal distribution, except for the self-efficacy scale ($K-S D = .23$, $p < .01$). However, by removing four participants with atypical scores from the analysis, the self-efficacy scale returned to a normal distribution. We thus tested all our hypotheses using parametric tests.

We constated they also differ in terms of the level of perceived interdependence within their current work team, with interdependence being perceived as the stronger in FFE sample ($M_{fastfood} = 25.58, S.D. = 4.20; M_{trad.} = 22.40, S.D. = 5.34, t(136) = 3.68; p < .000$).

We found that these 2 samples also differed in terms of other criteria, beginning with mean age ($M_{fastfood} = 23.33, S.D. = 4.82; M_{trad.} = 18.02, S.D. = 1.48, t(146) = 9.96, p < .000$), which was higher in the FFE sample than in the TCE sample. Lastly, the fast-food industry participants expressed a stronger sense of self-efficacy than their traditional catering counterparts ($M_{fastfood} = 31.49, S.D. = 4.31; M_{trad.} = 27.68, S.D. = 4.33, t(138) = 5.04, p < .000$), and a stronger sense of collective efficacy than their traditional catering colleagues ($M_{fastfood} = 38.90, S.D. = 6.18; M_{trad.} = 35.32, S.D. = 7.29, t(133) = 3.05, p < .002$). The differences between their self-determination and problem-focused coping were not significant results.

As an indication, additional analyses were carried out in order to gauge the contributions of the biographical data (sex, age, diploma, status, length of employment) to the scores of collective efficacy, self-efficacy, self-determination and problem-focused coping. No significant result were found on these dimensions.

Hypothesis 1 stated that in both occupational contexts (FFE and TCE) collective efficacy and self-efficacy would be positively related to problem-focused coping. So, for each sample, we began by examining the relationships between collective efficacy, self-efficacy and problem-focused coping measures by performing correlation analyses. In accordance with our first hypothesis, in FFE sample, collective efficacy was positively correlated with problem-focused coping ($r = .69, n = 53, p < .000$) (see Table 2). Self-efficacy was also positively correlated with problem-focused coping ($r = .26, n = 53, p = .05$). In TCE sample, too, collective efficacy was positively correlated with problem-focused coping ($r = .45, n =$

103, $p = .001$) (see Table 3). Similarly, self-efficacy was positively correlated with problem-focused coping ($r = .37, n = 103, p = .01$).

Insert Table 2 and 3 here

Hypothesis 2 stated that in both occupational contexts (FFE and TCE), self-determination would mediate the relationship between self-efficacy and problem-focused coping, but would not mediate the relationship between collective efficacy and problem-focused coping. For each sample, regression analysis was then applied to test the mediation model. First, for FFE sample (see Table 2), all the variables concerned by the mediation hypotheses (self-efficacy, collective efficacy, self-determination and problem-focused coping) were significantly correlated. The results of the regression analyses (Table 4) attested to a model whereby self-efficacy mediates coping strategies via self-determination (stage 1): the first simple regression indicated a direct effect of self-efficacy on self-determination, while two other regressions indicated a direct effect of self-efficacy and a direct effect of self-determination on problem-focused coping. However, as expected, the direct effect of self-efficacy on problem-focused coping ceased to be significant when self-efficacy and self-determination were simultaneously entered into the regression (Stage 2). This mediated effect was confirmed by Sobel test statistic = 1.52 ($p < .05$).

Contrary to the results for self-efficacy, the results of the regression analyses did not attest to the mediation by self-determination of the relationship between collective efficacy and coping. As indicated in Table 5, (Stage 1), the initial simple regression revealed a direct effect of collective efficacy on self-determination, while two other regressions indicated a direct effect of collective efficacy and a direct effect of self-determination on problem-focused coping. This time, the direct effect of collective efficacy on problem-focused coping

remained clearly significant when collective efficacy and self-determination were simultaneously entered into the regression (Stage 2). In other words, the mediation by self-determination did not have any impact in statistical terms on the link between collective efficacy and problem-focused coping strategies (Sobel test statistic = .52, *ns*).

Insert Table 4 and 5 here

Secondarily, for TCE sample, as shown in Table 3, some variables relating to the mediation hypotheses (self-efficacy, collective efficacy, self-determination and problem-focused coping) were not significantly correlated: the absence of a statistically significant correlation between self-efficacy and self-determination ruled out the possibility of modelling the mediation between self-efficacy, self-determination and problem-focused coping. However, it was possible to analyze the mediation between collective efficacy, self-determination and problem-focused coping. As indicated in Table 6 (Stage 1), the first simple regression indicated a direct effect of collective efficacy on self-determination, while the second regression indicated a direct effect of collective efficacy on problem-focused coping, although the third regression did not indicate any direct effect of self-determination on problem-focused coping. Moreover, the direct effect of collective efficacy on problem-focused coping was reinforced when collective efficacy and self-determination were simultaneously entered into the regression (Stage 2).

In accordance with our predictions, the results of the regression analyses failed to reveal any mediation by self-determination of the relationship between collective efficacy and coping strategies (Sobel test statistic = .70, *ns*).

Insert Table 6 here

Hypothesis 3 stated that in occupational context in which interdependence is high (FFE), collective efficacy would be more positively related to problem-focused coping than self-efficacy would be. In occupational context in which interdependence was low (TCE), collective efficacy and self-efficacy were equally positively related to problem-focused coping. In support of this hypothesis, the bivariate test of comparison for Pearson's correlation coefficient confirmed that the correlation between collective efficacy and problem-focused coping was significantly stronger than the correlation between self-efficacy and problem-focused coping ($p = .004$) in the occupational context in which interdependence was high (FFE). In the same time, this test failed to show that the correlation between collective efficacy and problem-focused coping was significantly stronger than the correlation between self-efficacy and problem-focused coping in TCE sample, characterized by lower interdependence than FFE sample.

Hypothesis 4 stated that relative to jobs in which interdependence is high (FFE), collective efficacy in low interdependence jobs (TCE) would be lesser positively related to problem-focused coping. In accordance with expectation, the correlation between collective efficacy and problem-focused coping was significantly stronger in the fast-food industry, where perceived interdependence is stronger (bivariate test), than in the sector of traditional catering, where perceived interdependence was weaker ($r_{fastfood} = .70, n = 53; r_{trad.} = .45, n = 103; p = .01$). Moderated multiple regression was used to examine the role of interdependence (high vs. low) as a moderator of collective efficacy and problem-focused coping relationship in all participants ($N = 156$). To determine the joint contribution of collective efficacy and interdependence on problem-focused coping, we performed a hierarchical regression analysis in which collective efficacy was entered on the first stage (R

= .39, $F(1,119) = 22,26$, $p < .000$, $R^2 = .15$) followed by interdependence, and then, by two-way multiplicative term, collective efficacy and interdependence on the second stage ($R = .44$, $F(2,118) = 14,42$, $p < .000$, $R^2 = .19$). We notice that $\Delta R^2 = .04$, so we can conclude that interdependence give 4% of added value in term of variance explained in collective efficacy-coping problem relationship.

Discussion

The objective of this study was to investigate the correlation between individual beliefs about efficacy (self and collective) in workplace and problem-focused coping strategies recognized as being adaptive in front of occupational stress. We investigated among employees engaged in similar work contexts, as far as the nature of the tasks and the stressors are concerned. So, we chose two restaurant contexts. More specifically, the objective was to examine the supposed superiority of collective efficacy over self-efficacy, as a resource in stressful contexts. In line with previous studies, we found that a sense of efficacy, be it personal or collective, is correlated with problem-focused strategies (hypothesis 1). These perceptions constitute valuable resources for the individual, in that they are correlated with the adoption of attitudes focused on resolving problematic situations that are likely to generate stress. Our second objective (hypothesis 2) was to examine the processes operating at the level of the participants' perceptions of efficacy and motivations. More specifically, we hypothesized that the sense of self-determination would mediate the correlation between self-efficacy and the adoption of problem-focused coping strategies, but not the link between collective efficacy and problem-focused coping. This hypothesis was only confirmed in a occupational context with a high level of perceived interdependence (in FFE sample). Until we are able to duplicate this result in other occupational contexts, we can

only put forward tentative interpretations about this mediation effect. According to Deci and Ryan's (1985) model, self-determination, which is related to the most intrinsic dimensions of individual motivations, constitutes a resource against stress, in that it allows difficulties to be perceived as challenges, thereby enhancing skills and performances. Under these conditions, work is perceived less as a constraint than as an opportunity to fulfil oneself in fields chosen for personal reasons. Thus, the reasons for going beyond the constraining aspects of the task are reinforced. Here, self-efficacy takes on the status of mediator: it translates belief in the control of one's environment (self-efficacy) into a feeling of control over the task itself, in which the individual becomes involved at both the cognitive and behavioural levels. Consequently, this commitment to the task promotes the adoption of coping strategies. The disappearance of the effect of self-efficacy on problem-focused coping when self-determination is introduced attests to the truly decisive effect of self-determination. Moreover, we noted (TCE sample) the absence of any correlation between self-efficacy and self-determination among the young trainees employed in traditional catering, whose self-efficacy was lower than that of their older counterparts in the fast-food industry. We believe that this effect stemmed from the former's lack of academic success. However, although they displayed a lower level of self-efficacy, their intrinsic interest in the occupation (self-determination) was identical to that of employees in the fast-food industry. As a provisional interpretation too, we suggest that some of the biographical characteristics of the participants in this second sample (TCE) may partly account for the weaker contribution of self-determination to the coping strategies: as these were young employees combining training with work experience, their motivation and commitment to their job were still in flux. Even if self-efficacy and self-determination do indeed constitute a resource against stressful situations, it does not appear to be essential for adopting adaptive strategies. However that may be, on a theoretical level, these results led us to conclude that although self-efficacy and

collective efficacy are not opposite psychological constructs, it would nonetheless be advisable to identify the perceptual levels at which they operate. These results lend weight to the idea that collective efficacy is a belief shared and maintained by a group, independently of the characteristics of its individual members, such as their self-determination

As expected in hypothesis 3, we noted in the first sample (FFE) that these coping strategies are more strongly correlated with collective efficacy than they are with self-efficacy. We therefore needed to check whether the effect of collective efficacy decreases when similar tasks - cooking, preparation and service - are performed in a context where we would expect employees to perceive a lower level of interdependence. If we observed this superiority of collective efficacy on self-efficacy in the fast-food industry, it was not the case in the sector of traditional catering. In a context of necessary interdependence (fast-food industry), confidence in the efficacy of the group probably plays a regulating role, allowing participants to process environmental information from a perspective other than their own. In other words, participants mobilize explanations and coping strategies at a collective level instead of reasoning on a purely personal level, as they would do spontaneously if the group's perceived influence on the management of performances in the workplace was weaker or non-existent. The results support this explanatory hypothesis.

Our last objective (hypothesis 4) was to examine the effects of the level of interdependence within the teams, taking into account the literature attesting to a close link between this dimension and collective efficacy. The hierarchical regression analysis confirmed that the superiority of collective efficacy over self-efficacy is observed in a context of higher perceived interdependence. It should, however, be pointed out that interdependence is generally defined as the sharing of common tasks in order to attain a common goal (turnover, customer satisfaction, corporate image, etc). We found that in a particularly favourable context for the development of functional interdependence within employees (like in FFE

sample), collective efficacy represents useful resources for managing stressful situations. However, in the sectors we studied, this term was primarily used to designate functional coordination: the employees serving the customers relied on the speed and efficiency of the teams preparing the food.

Managerial implications

Creating conditions that are conducive to the mobilization of resources linked to the work group has implications in terms of management. By underlining the predominant role of collective efficacy in the management of stressful events, we assert that the individual is not the only person responsible for his or her difficulties in adapting to a particular work situation, any more than he or she can be held entirely responsible for a deleterious work climate. In contexts where working in interdependence “goes with the job”, we can make some recommendations about organizational improvements, particularly relating to communication, cohesion and team performance. For example, the team’s strong points should be highlighted and observational learning should be promoted. Small-scale teamwork (between 5 and 10 people) should be favoured, if it does indeed prove to further the development of collective efficacy. If interdependence is not inherent to the task, it should be activated by setting up specific group work situations. From this managerial perspective, collective mobilization takes priority over the development of individual skills (personal experience, training) while not actually replacing it. Occupational stress does not have to be an inevitability linked to new work conditions, which individuals are left to cope with. Encouraging them to mobilize their resources does not necessarily mean challenging them at a personal level, in terms of their project, motivation or self-confidence. Rather, problems of occupational stress management need to be tackled in the context of group dynamics, whether

these operate at the level of performances, beliefs or occupational representations. (Bliese & Jex, 1999; Cox, 1997; Esnard, 2007; Griffith, 1994).

Limitations and futures researches

This study has some limitations that warrant mention. First, its cross-sectional nature precludes us from making causal inferences regarding the relationship between collective and self efficacy and focused-problem coping. It will be necessary to carry out future longitudinal or experimental studies to provide some answers about the effects of collective efficacy on adaptive strategies in front of occupational stress. It will also be necessary to take into account two moderators of coping effectiveness: one is the timeframe over which outcomes are considered, and one is the level of controllability of demands. Second, some others limitations are in relation with these specific occupational contexts. For example, the two types of food service organizations differed in some others ways in addition to interdependence of the work. Notably, later research should clarify the contribution of organizational commitment of each kind of employees on coping strategies. We can think that the organizational commitment is likely to be pretty low among part-time employees and may differ from those with full-time employees who expect to remain with an organization indefinitely. Furthermore, participants in FFE sample were employees and in TCE sample they were employees, too, but also trainees. So, they don't have the same position in their teams. Lastly, caution must be used when interpreting the results given the small size of the first sample, which probably allowed for the detection of large effects. The context does not invalidate the results obtained, but it simply means that we have to be duplicated in other sectors and with larger sample. We must underline, too, that this study focused on perceived interdependence, rather than objectively measured interdependence. We also have to explore if such perceptions might be more construed by implicit theories, norms and values about

performance and dealing with occupational stress, rather than by the daily reality of the task. More generally, future investigations will have to examine the legitimacy of the measurement used in these studies. For example, the individual self-efficacy items refer to generalized self-efficacy; they are not work-specific like a situational measure of self-efficacy directed towards the job or task. The collective efficacy items – as well as the coping items – refer to the occupational context. Thus, it could be expected that items addressing the same context show higher associations than items from different contexts. Moreover, it is possible that there is conceptual overlap between items from the scales we used, notably between self-efficacy and problem-focused coping, where we have found a high correlation. However that may be, in short, if all the right conditions are met, individuals will process the data yielded by their work environment at a collective representational level. Once individualistic processing of the situation has been abandoned, coping strategies become less reliant on beliefs about one's own capabilities and interests - beliefs which, as we have just seen, are themselves contingent upon previous experience of success or failure. If this point has just been brought up in these studies, it needs to be detailed, as the impact of the social status in the group. Another point needs to be investigated: we can consider stress not as a stressor like in this study, but as an outcome variable, a subsequent strain predicted by coping. In this way, we could be able to test if problem-focused coping in relationship with collective efficacy is really the better adaptive strategy in these occupational contexts.

References

- Baker, S. R. (2004). Intrinsic, extrinsic, and amotivational orientations: Their role in university adjustment, stress, well-being, and subsequent academic performance. *Current Psychology: Developmental, Learning, Personality, Social*, 23(3), 189-202.

- Bandura, A. (1995). Exercise of personal and collective efficacy in changing societies. In A. Bandura (Ed.), *Self-efficacy in changing societies* (pp. 1-45). New York: Cambridge University Press.
- Bandura, A. (1997). L'efficacité organisationnelle collective. In A. Bandura (Ed.), *Auto-efficacité: le sentiment d'efficacité personnelle* (pp. 694-715). Translated by Lecomte, J. (2003). Paris; Brussels: De Boeck.
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, *51*, 1173-1182.
- Blais, M. R., Brière, N. M., Lachance, L., & Vallerand, R. J. (1992). Construction and validation of the Blais Work Motivation Inventory. *Canadian Psychology*, *33*, 280-287.
- Bliese, P. D. & Jex, S. M. (1999). Incorporating multiple levels of analysis into occupational stress research. *Work and Stress*, *13*(1), 1-6.
- Boggiano, A. K., Shields, A., & Barrett, M. (1992). Helplessness deficits in students: The role of motivational orientation. *Motivation and Emotion*, *16*(3), 271-296.
- Bruchon-Schweitzer, M. (2002). *Psychologie de la santé. Modèles, concepts et méthodes*. Paris: Dunod.
- Campion, M. A., Medsker, G. J., & Higgs, A. C. (1993). Relations between work group characteristics and effectiveness: Implications for designing effective work groups. *Personnel Psychology*, *46*, 823-850.
- Campion, M. A., Papper, E. M. & Medsker, G. J. (1996). Relations between work team characteristics and effectiveness: A replication and extension. *Personnel Psychology*, *49*, 429-452.
- Chwalisz K., Altmaier E. M., & Russel D. W. (1992). Causal attributions, self-efficacy cognitions, and coping with stress. *Journal of Social and Clinical Psychology*, *11*, 377-400.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385-396.
- Cousson-Gelie, F., Bruchon-Schweitzer, M., Quintard, B., Nuissier, J., & Rasclé, N. (1996). Analyse multidimensionnelle d'une échelle de coping: validation française de la WCC (Ways of Coping Checklist). *Psychologie Française*, *41* (2), 155-164.
- Cooper, C. L. (1986). Job distress: Recent research and emerging role of the clinical occupational psychologist. *Bulletin of the British Psychological Society*, *39*, 325-331.

- Cooper, C. L., Dewe, P. J., & O'Driscoll, M. P. (2001). *Organizational stress: A review and critique of theory, research, and applications*. Thousand Oaks, CA: Sage Publications.
- Cox, T. (1997). Workplace health promotion. *Work and Stress*, *11*, 1-5.
- Deci, E. L. & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.
- Deci, E. L. & Ryan, R. M. (Eds.), (2002). *Handbook of self-determination research*. Rochester, NY: University of Rochester Press.
- Deci, E. L. & Ryan, R. M. (2008). Self-Determination Theory: A Macrotheory of Human Motivation, Development, and Health. *Canadian Psychology*, *49* (3), 182-185.
- Dorz, S., Novara, C., Sica, C., & Sanavio, E. (2003). Predicting burnout among HIV/AIDS and oncology health care workers. *Psychology and Health*, *18*(5), 677-684.
- Esnard, C. (2007). Pour une approche psychosociale du stress professionnel: Examen des problématiques représentationnelles et identitaires. In G. Chasseigne (Ed.), *Cognition, santé et vie quotidienne vol 1* (pp. 109-127). Paris: Publibook Université.
- Evers, W. J., Brouwers, A., & Tomic W. (2002). Burnout and self-efficacy: A study on teachers' beliefs when implementing an innovative educational system in the Netherlands. *British Journal of Educational Psychology*, *72*, 227-244.
- Folkman, S. & Lazarus R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, *21*(3), 219-239.
- Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis A. (1986). Appraisal, coping, health status, and psychological symptoms. *Journal of Personality and Social Psychology*, *50*, 571-579.
- Gagné, M. & Deci, E.L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, *26*, 331-362.
- Guay, F., Ratelle, C. F., Senécal, C., Larose, S., & Deschênes, A. (2006). Distinguishing developmental from chronic career indecision: Self-efficacy, autonomy, and social Support. *Journal of Career Assessment*, *14*, 235-251.
- Gully, S. M., Incalcaterra, K. A., Joshi, A., & Beaubien, J. M. (2002). A meta-analysis of team-efficacy, potency, and performance: Interdependence and level of analysis as moderators of observed relationships. *Journal of Applied Psychology*, *87*, 819-832.

- Guzzo, R. A. & Shea G. P. (1992). Group performance and intergroup relations in organizations. In M. D. Dunnette and L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 3, pp, 269-313). Palo Alto: Consulting Psychologists Press.
- Guzzo, R. A, Yost, P. R, Campbell, R. J., & Shea, G. P (1993). Potency in groups: Articulating a construct. *British Journal of Social Psychology*, 32, 87-106.
- Homburg, A. & Stolberg, A. (2006). Explaining pro-environmental behavior with a cognitive theory of stress. *Journal of Environmental Psychology*, 26, 1-14.
- Hagger, M. S. & Chatzisarantis, N. (2009). Integrating the theory of planned behaviour and self-determination theory in health behaviour: A meta-analysis. *British Journal of Health Psychology*, 14, 275-302.
- Jerusalem, M. & Schwarzer, R. (1992). Self-efficacy as a resource factor in stress appraisal processes. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 195-213). Washington, DC: Hemisphere Publishing Corp.
- Jex, S. M. & Bliese, P. D. (1999). Efficacy beliefs as a moderator of the impact of work-related stressors: A multilevel study. *Journal of Applied Psychology*, 84, 349-361.
- Kenny, D. A. (1998). *Mediation analysis*. [available online at: <http://w3.nai.net/dakenny/mediate.htm>]
- Lazarus, R. S. & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Lent, R. W., Schmidt, J., & Schmidt, L. (2005). Collective efficacy beliefs in student work teams: Relation to self-efficacy, cohesion and performance. *Journal of Vocational Behavior*, 68, 73-84.
- Ntoumanis, N., Edmunds, J., & Duda, J. L. (2009). Understanding the coping process from a self-determination theory perspective. *British Journal of Health Psychology*, 14, 249-260.
- Ogus, E. D. (1991). Burnout and coping strategies: A comparative study of ward nurses. *Journal of Social Behavior and Personality*, 7, 111-124.
- Pervin, L. A. & John, O. P. (2001). *Personality. Theory and research*. New York: Wiley.
- Rasclé, N. & Irachabal, S. (2001). Mediators and moderators: Theoretical and methodological implications in stress and health psychology research. *Travail Humain*, 64, 2, 97-118.

- Riggs, M. L. & Knight, P. A. (1994). The impact of perceived group success-failure on motivational beliefs and attitudes: A causal model. *Journal of Applied Psychology*, 79, 755–766.
- Ryan, R. M., Plant, R. W., & O'Malley, S. (1995). Initial motivations for alcohol treatment: Relations with patient characteristics, treatment involvement, and dropout. *Addictive Behaviors*, 20(3), 279-297.
- Schwarzer, R. & Schmitz, G. S. (1999). Collective efficacy of teachers: A longitudinal study in ten German states. *Zeitschrift für Sozialpsychologie*, 30(4), 262-274.
- Schwarzer, R., Schmitz, G. S., & Daytner, G. T. (1999). *Psychometric scales: Collective self-efficacy; Teacher self-efficacy*. [Available online at: <http://www.ralfschwarzer.de/>]
- Shea, G. P. & Guzzo, R. A. (1987). Groups as human resources. In K. M. Rowland and G. R. Fertis (Eds.), *Research in human resources and personnel management*, 5, 323-356.
- Stajkovic, A. D. & Lee, D. (2001). *A meta-analysis of the relationship between collective efficacy and group performance*. Paper presented at the meeting of the Academy of Management, Washington, DC.
- Stajkovic, A.D., Lee, D., & Nyberg, A.J. (2009). Collective Efficacy, Group Potency, and Group Performance: Meta-Analyses of Their Relationships, and Test of a Mediation Model. *Journal of Applied Psychology*, 94, 814-828.
- Vallerand, R.J. & Grouzet, F. (2001). Pour un modèle hiérarchique de la motivation intrinsèque et extrinsèque dans les pratiques sportives et l'activité physique. In F. Cury et P. Sarrazin, *Théories de la motivation et pratiques sportives* (pp. 57-95). Paris: Presses Universitaires de France.
- Van Dick, R. & Wagner, U. (2001). Stress and strain in teaching: A structural equation approach. *British Journal of Educational Psychology*, 71, 243-259.
- Vansteenkiste, M., Lens, W., & Deci, E.L. (2006). Intrinsic versus extrinsic goal contents in self-determination theory : another look at the quality of academic motivation. *Educational Psychologist*, 41, 19-31.
- Walker, C. O., Greene, B. A., & Mansell, R. A. (2006). Identification with academics, intrinsic/extrinsic motivation, and self-efficacy as predictors of cognitive engagement. *Learning and Individual Differences*, 16, 1-12.

- Wood, R. & Bandura, A. (1989). Impact of conceptions of ability on self-regulatory mechanisms and complex decision making. *Journal of Personality and Social Psychology*, 56, 407-415.
- Zaccaro, S. J., Blair, V., Peterson, C., & Zazanis, M. (1995). Collective efficacy. In J. E. Maddux (Ed.), *Self-efficacy, adaptation, and adjustment: Theory, research, and application* (pp. 305–328). New York: Plenum.

Table 1. Measures and Reliability Coefficients (Cronbach's alpha) for Fast-Food Employees (FFE) and Traditional Catering Employees (TCE)

Measures	sample	Cronbach's alpha
<i>Perceived stress</i>	FFE	0.81
	TCE	0.60
<i>Interdependence</i>	FFE	0.69
	TCE	0.72
<i>Self-efficacy</i>	FFE	0.86
	TCE	0.73
<i>Collective efficacy</i>	FFE	0.93
	TCE	0.84
<i>Self-determination</i>	FFE	0.92
	TCE	0.85
<i>Coping strategies (scale coping –problem)</i>	FFE	0.83
	TCE	0.79

Table 2. Descriptive data (means and standard deviations) and correlations between self-efficacy, collective efficacy, self-determination and problem-focused coping for fast-food employees sample

	Mean	S.D.	min-max	1	2	3
1. Self-efficacy	31.49	4.31	16-39			
2. Collective efficacy	35.32	7.29	19-47	.29*		
3. Self-determination	3.02	20.82	-14-38	.41 **	.52***	
4. Problem-focused coping	28.88	5.48	14-38	.26*	.69***	.55***

* $p < .05$; ** $p < .01$; *** $p < .001$; $N = 53$

Table 3. Descriptive data (means and standard deviations) and correlations between personal self-efficacy, collective efficacy, self-determination and problem-focused coping for traditional catering employees sample

	mean	S.D.	min-max	1	2	3
1. Self-efficacy	27.68	4.33	10-40			
2. Collective efficacy	38.390	6.18	17-51	.44 **		
3. Self-determination	3.54	18.22	-39.16-36.16	.23	.46 ***	
4. Problem-focused coping	27.87	6.27	10-40	.37*	.45 ***	.33*

* $p < .05$; ** $p < .01$; *** $p < .001$; $N = 103$

Table 4. Analysis of mediation by self-determination of the relationship between self-efficacy and problem-focused coping for fast-food employees sample

<i>Measure</i>	<i>Predictive variables</i>		F	<i>df</i>	R ²	<i>Adj.R²</i>
	<i>Self-efficacy</i>	<i>Self-determination</i>				
Self-determination	.41 **		10.39	1	.17	.16
Problem-focused coping						
Stage 1	.26*		3.84	1	.07	.05
Stage 2	.04	.55 ***	11.76	2	.32	.29

* $p < .05$; ** $p < .01$; *** $p < .001$; $N = 53$

Table 5. Analysis of mediation by self-determination of the relationship between collective efficacy and problem-focused coping for fast-food employees sample

<i>Measure</i>	<i>Predictive variables</i>		F	<i>df</i>	R ²	<i>Adj.R²</i>
	<i>Collective efficacy</i>	<i>Self-determination</i>				
Self-determination	.52 ***		18.79	1	.27	.25
Problem-focused coping						
Stage 1	.69 ***		47.88	1	.48	.47
Stage 2	.55 ***	.28*	29.45	2	.54	.52

* $p < .05$; ** $p < .01$; *** $p < .001$; $N = 53$

Table 6. Analysis of mediation by self-determination of the relationship between collective efficacy and problem-focused coping for Traditional catering employees sample

<i>Measures</i>	<i>Predictive variables</i>		F	<i>df</i>	R ²	<i>Adj.R²</i>
	<i>Collective efficacy</i>	<i>Self-determination</i>				
Self-determination	.46 ***		16.44	1	.22	.20
Problem-focused coping						
Stage 1	.45***		4.29	1	.06	.05
Stage 2	.39 ***	.14	7.39	2	.22	.19

* $p < .05$; ** $p < .01$; *** $p < .001$; $N = 103$