

BURNOUT AT THE SUPERMARKET: TESTING THE RELEVANCE OF PERSONALITY AND STRESSFUL SITUATIONS

BURNOUT EN EL SUPERMERCADO: EVALUANDO LA IMPORTANCIA DE LA PERSONALIDAD Y SITUACIONES DE ESTRÉS

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Abstract

Professional burnout includes psychological implications that have been studied in relation to job positions in which personal contact is frequent. However, there might be differential vulnerability with respect to the likelihood of showing increased symptoms of the syndrome. The present study analyzes two risk paths: (a) the increased contact with clients that characterizes some job positions,

and (b) the relationship between burnout and the combination of the personality traits considered by the Big Five model. To do so, two groups of supermarket workers were compared: cashiers and department managers. To test the relevance of the situation, here we analyze whether cashiers present higher burnout scores than department managers due to their greater level of stressful contact with clients. Furthermore, personality traits were measured and combined to estimate the efficient use of skills and knowledge to achieve certain social goals (*P*

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factor). The results show no significant differences in burnout between cashiers and department managers. Individual differences in P scores, however, showed substantial negative correlations with burnout scores: greater burnout scores were associated with increased vulnerable personalities (low levels of extraversion, agreeableness, conscientiousness, emotional stability, and openness). It is suggested that interventions tailored to the workers' P levels may help to increase protective factors against burnout in inescapable stressful situations.

Keywords: Burnout; Personality; Supermarket workers; Short Burnout Questionnaire; Maslach Inventory.

Introduction

According to Maslach, Jackson, and Leiter (1997) "burnout is a psychological syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment that can occur among individuals who work with other people in some capacity" (p.192).

The first studies about this syndrome focused on healthcare professions (Freudemberger, 1974; Maslach & Jackson 1982). It was thought that the syndrome emerged from the social interaction with patients. Based on these observations, the *Maslach Burnout Inventory* (MBI, Maslach & Jackson, 1981, 1986) was designed to evaluate the *burnout* construct in a standardized way.

Initial studies with the MBI on this type of healthcare professions identified three factors: emotional exhaustion, depersonalization, and personal accomplishment. However, research on burnout has not been limited to healthcare. It is usually assumed that the syndrome results from chronic stress, essentially work-related, induced by the working conditions experienced across occupations and activities. Burnout has been documented in athletes (Fender, 1989; Garcés de los Fayos & Cantón, 1995), managers (Levinson, 1981) and non-professional activities such as parenting (Procaccini & Kiefaber, 1983) or couple relationships (Pines, 1988).

However, the three factors enumerated above were ambiguous when analyzing data in further non-healthcare samples. For example, the factors of emotional exhaustion and depersonalization overlapped and it was difficult to distinguish them. For this reason, in later editions of the MBI, the MBI General Survey (MBI-GS)-a theoretical and operational reworking of the burnout construct- was applied to non-healthcare professions (Maslach et al., 1997). Specifically, burnout was redefined as "a crisis in one's relationship with work, not necessarily as a crisis in one's relationship with people at work" (pp. 208-209). The three modified scales were renamed exhaustion, cynicism, and professional efficacy.

Some studies have proposed the construct of "emotional labor", which has been related to burnout in some studies, yet no consistent empirical results have been found (Shankar & Kumar, 2014). In these "emotional labors", the worker must show emotions according to a "social desirability" or company norms, regardless of their real emotional state. This would occur, for example, in jobs that are carried out face to face with the clients, where the famous corporate saying ("The customer is always right") is applied. In non-congruent situations where the worker must display certain emotions that he/she does not feel or feels differently, it is necessary to make an effort to hide or exaggerate real emotions. This effort is referred to as "emotional labor" (Hochschild, 1983).

There are studies that document a direct relationship between emotional dissonance and professional burnout (Heuven & Bakker, 2003; Zapf, 2002). In Spain, Moreno-Jiménez et al. (2004) study on the professional burnout carried out with 485 supermarket cashiers in the Community of Madrid found that cashier work has a strong emotional component. The interaction with clients exceeds 80 % of the time invested in the working day, requiring expressing positive emotions and controlling/inhibiting negative emotions. This continuous emotional management can create conflict, both with the mood of the worker, and with the situation (e.g., conflictive clients or problems with payment of products), probably causing emotional dissonance. Further studies have obtained results in this regard, showing that workers in the "first line" of contact with the client are more likely to experience labor exhaustion due to the high frequency and repetitive-

ness of their work, especially in terms of emotional exhaustion and cynicism (Johnson, Holdsworth, Hoel, & Zapf, 2013; Singh, 2000).

On the other hand, there are also studies connecting burnout and undesirable physical consequences in the health of workers, and consequently, with reduced well-being. This could also include an economic impact associated to the medical leave that workers sometimes need due to these physical consequences. For example, Kottwitz, Salathé, Buser, and Elferin (2017) reviewed the cost of lower back pain associated with presentism, absenteeism, and work disablement in Switzerland. These authors showed that musculoskeletal pain is a major health problem that causes costs of 1.3-3.2 % of the gross domestic product. Only lower back pain accounts for approximately 6.1 % of the total expenditure on medical care in Switzerland (Wieser et al., 2011). Apart from lower back pain, these authors describe the emotional burden associated with some jobs that combine stress at work, family stress, and economic stress, resulting in a reduction in their quality of life (Elfering & Mannion, 2008). Kottwitz et al. (2017) related emotional work with musculoskeletal pain in supermarket cashiers, starting from a preventive model of occupational health as a demonstrated priority (Elfering, 2006).

The present study proposes that it is feasible that the worker's state of mind, and his/her interaction with the employment situation and emotional components mentioned above, may be linked to an association between suffering burnout and the most stable personality characteristics of a worker.

In this regard, Roberts and DelVecchio (2000) published a meta-analysis of 152 longitudinal studies in which 3,217 test-retest correlations were considered for a series of personality traits. In those studies, 55,180 people had been evaluated. The results indicated that the stability of personality increases from 0.31 in childhood to 0.54 during university, to 0.64 at the age of 30 years and reaches a stable maximum of 0.74 at the age of 50 years (remaining stable until approximately the age of 70 years). The observed increased stability of personality traits may be attributed to the fact that there are greater chances for

choosing environments consistent with the individual's identity.

From this perspective, an individual with high levels of emotional instability and introversion would probably be more vulnerable to the emotional exhaustion when exposed to a situation of systematic interaction with clients. On the contrary, someone with high levels of extraversion and emotional stability would have (and could spontaneously develop) more efficient coping strategies for controlling and regulating emotions (Caspi et al. 2014; Lluís-Font, 2005).

There are previous studies relating burnout and stable personality traits (e.g., Alarcon, Eschleman, & Bowling, 2009; Langelaan, Bakker, Lorenz, van Doornen, & Schaufeli, 2006; Swider & Zimmerman, 2010).

Swider and Zimmerman (2010) noted the importance of including individual-level predictors in research that typically centers on occupational- or organizational-level predictors of job burnout. Their conclusions suggest that the use of a Five Factor Model -based personality assessment as part of the selection systems would better inform organizations/companies of those employees more likely to burnout. Authors also highlighted that using personality testing during the selection processes may allow to screen out individuals who have traits that would predispose them to experience job burnout, particularly for jobs that frequently tend to induce burnout in employees: "Organizations that make selection decisions based on these traits may benefit in multiple ways, as some of the traits that are related to job burnout (conscientiousness, neuroticism, and agreeableness) have also been found to predict other important work-related outcomes such as job performance (conscientiousness and neuroticism for performance in most jobs and agreeableness for performance in customer service and team-based jobs)" (p. 501). In a previous study, Langella et al. (2006) demonstrated that neuroticism dominated the "picture burnout"; their results showed that burnout seems to be primarily related to neuroticism.

In a meta-analysis study, Alarcon et al. (2009) recommended that, to better understand the process of burnout, researchers should explore the mechanisms through which

personality influences burnout. Authors found that some personality traits yielded stronger relationships with burnout than others. For example, Emotional stability, positive affectivity, and negative affectivity had relatively stronger relationships with emotional exhaustion than the other personality traits. In the same way, high agreeableness reflected favorable perceptions of people in general. Authors concluded that it is unlikely for agreeable individuals to experience negative responses (e.g., depersonalization) towards people in specific domains, such as the workplace.

Alarcon et al' meta-analysis concluded that personality variables must be included as predictors in future research on burnout, showing that more research is needed to examine personality and burnout relationships. Following this suggestion, the present study focuses on the general factor of personality (P), as no studies have been found that relate P factor and burnout. van der Linden et al.'s (2017) comprehensive meta-analysis revealed greater levels of emotional intelligence in people characterized by higher levels of extraversion, agreeableness, conscientiousness, emotional stability, and openness. The combination of these traits in the appropriate direction would increase the probability of efficiently using skills and knowledge to achieve desired social goals.

In summary, the present work includes the proposals of previous studies that suggest evaluating personality in relation to the problem of burnout, starting from the Big-Five model (i.e., Alarcon et al., 2009; Swider & Zimmerman, 2010), but adding the integrating dimension proposed by the general personality factor model (i.e., Musek 2007). Therefore, the present study supports the framework initiated by previous studies that have used the dimensions of the Big-Five, but also adds an integrating analysis in a single score that calculates P and which has not been analysed in previous studies. In fact, P can be considered as a more parsimonious summary score, as it yields a single indicator, yet it parts from a combination of traits considered in the Big Five Model. The P factor usually results from the following combination: high openness (A+), high responsibility (R+), high extraversion (E+), high cordiality (C+) and low neuroticism (N-): A+R+E+C+N-. Therefore, it is noteworthy that this unique score stresses a conceptual definition related to the use of

skills and knowledge to achieve social goals. In the present study, we will analyze whether those skills could be a protective factor against burnout.

We acknowledge that the psychological relevance of the P factor (also known as GFP, General Factor of Personality) is still controversial (Demetriou et al., 2018). However, the exhaustive analyses of Loehlin (2012) led to the following conclusion: "a GFP is a fairly generalizable and quite ready measurable phenomenon" (p. 262). This researcher obtained similar GFPs analyzing broadly and narrowly defined personality scales, as well as from self-reports and report provided by others. Finally, Loehlin obtained GFPs from eight quite different personality inventories and computed their correlation with a set of criterion variables. In this regard, the correlation with communication skills was 0.20, the correlation with friendliness was 0.24, and the correlation with creativity was 0.29. Using a longitudinal design, Flores-Mendoza, Escorial, Herrero, and Colom (2018) showed that greater externalizing behaviors assessed in childhood predict lower P scores ($r = -0.24$) and higher socialization difficulties ($r = 0.20$) evaluated fifteen years apart.

In view of the considerations described so far, the present study predicts that individuals will vary in their vulnerability to situations that evoke emotional distress according to their P scores: the lower the P scores, the higher the vulnerability. Two are the main goals of this study. First, to compare supermarket workers of different sections characterized with high or low contact with clients. This is relevant here because this defines an external factor that the worker cannot control in any way. According to previous studies (Moreno et al, 2004), we predict that greater levels of contact with clients will reveal higher scores on burnout than lower levels of contact with clients. The second aim focuses on the individual instead of on the situation. Here we predict that lower P scores, resulting from a combination of the traits considered by the Big Five Model –extraversion, agreeableness, conscientiousness, emotional stability, and openness– (Ashton, 2018; Chamorro-Premuzic, 2014), will increase vulnerability in the work setting considered here (supermarket) regardless of the supermarket section. In short, the design conceived for the present study allows testing the strength of the situation against the relevance of the individual in ex-

plaining the emergence of burnout symptoms assessed through standard and well validated inventories.

Method

Participants

In this study, twenty-six employees of a supermarket located in the West area of the 'Comunidad de Madrid' completed a set of questionnaires assessing the variables of interest. Thirteen were cashiers and thirteen worked in other departments. Their age ranged from 22 to 42 years ($M = 30.3$, $SD = 4.78$). Overall, there were 11 men and 15 women. Regarding their educational level, 58 % had completed secondary education, 23 % were undergoing or had completed university studies, 11 % had finished high school, and 8 % had completed primary education. Regarding their achieved grades (possible range 0-10), most were in a range of 6-7 (62 %) and 5-6 (27 %). The number of years that participants had been working in the service sector varied from 2 to 14 years. Almost 60 % of the participants had been in the current position for at least 2 years (See Table 1 in the Results Section, where data on these variables are presented, separated according to cashiers / section managers).

All participants were informed of the objectives and tasks of the study and signed an informed consent form, after being guaranteed their data protection, anonymization of results and possibility of leaving the study at any time if they so wished, in accordance with the Declaration of Helsinki.

Measures

Sociodemographic questionnaire. A brief questionnaire was administered asking about the following variables: Educational level of the participants and their parents (1 = primary education, 2 = compulsory education, 3 = high school, and 4 = university studies), Average grades (from 0 to 10), Years working, and Years in the current position.

MBI-GS (Maslach Burnout Inventory, General Survey; Maslach, Jackson, & Leiter, 1996; adapted for Spain by Moreno-Jiménez, Rodríguez-Carbajal, & Escobar, 2001). This inventory includes 16 items answered using a scale of 7 points ranging from 0 (never) to 6 (always). The three scales included in the MBI-GS are: exhaustion, cynicism, and professional efficacy. The MBI-GS evaluates the construct as a crisis at the work place, but not necessarily with respect to work colleagues. Exhaustion is measured through five items (e.g., "I feel tired when I get up in the morning and I have to face another day on the job"). Cynicism is measured through five items (e.g., "I have become more cynical about whether my work contributes anything"). And Professional efficacy is measured through six items (e.g., "In my opinion, I am good at my job"). The Cronbach's alpha value obtained in the present research was 0.91, slightly higher than the obtained in other studies with supermarket workers: Baldissarri, Andrighetto, and Volpato (2014) reported a value of 0.8 and Moreno et al. (2014) computed a value of 0.82.

CBB (Short Questionnaire of Burnout; in Spanish: Cuestionario Breve de Burnout; by Moreno, Bustos, Matallana, & Miralles, 1997). It includes 21 items that are answered using a 5-point scale ("1" never, "2" rarely, "3" sometimes, "4" frequently and "5" on most occasions). The history of the syndrome, its elements and its consequences are explored. This questionnaire yields an overall evaluation of the construct, as well as of its antecedents and its consequences. The cut-off point is set at 25 points, from which it is considered that the individual presents the syndrome. Its relationship with the MBI has been studied and the results suggested that it does not seem adequate for the direct evaluation of the specific components of the syndrome. Nevertheless, it provides an assessment of some *burnout* elements. This questionnaire also measures the possible consequences of burnout in environments beyond the workplace (e.g., "Work is affecting my family and personal relationships"). The α value found in the present study was 0.90. Again, this value is slightly higher than the reported in other studies: Moreno-Jiménez et al. (1997) computed a value of 0.74.

NEO-FFI (Neo Five-Factor Inventory; Costa & McCrae, 1999). This widely administered test taps the personality traits of the Big Five model. It includes 60 items

answered on a scale ranging from "0" (Totally disagree) to "4" (Strongly agree). The five traits that the NEO-FFI assesses are (the α values obtained in the present study are shown in parentheses): *Extraversion* ($\alpha = 0.88$), *Agreeableness* ($\alpha = 0.93$), *Conscientiousness* ($\alpha = .88$), *Neuroticism* or Emotional Instability ($\alpha = 0.74$), and *Openness* ($\alpha = 0.87$).

Procedure

After signing the informed consent, 30 workers were given a booklet with all the questionnaires described above, explaining how to complete their personal data and inventories. Participation was voluntary and they did not receive any financial compensation. Twenty-six questionnaires were returned on time.

Analyses

First, mean scores were computed for the variables of interest. Furthermore, a global score corresponding to the *P factor* was calculated summing the scores in extraversion, agreeableness, conscientiousness, emotional stability

(neuroticism reversed), and openness. Although the best way to estimate P scores is computing a factor analysis (Loehlin, 2012), here, because of the small sample size, we simply considered the obtained raw scores to obtain a general summary score for each participant. Although this is not the ideal scenario to obtain the most refined scores, it has been shown that the correlation between factor and raw scores are usually quite high. Thus, for instance, the correlation between the IQ scores obtained from the simple summation of the Wechsler subtests' scores and the scores on a general factor (*g*) obtained after computing a factor analysis from the Wechsler subtests is higher than 0.9 (Jensen, 1980).

Second, the differences in means between groups (cashiers vs section managers) in the variables of interest were calculated. Nevertheless, the effect size (*d*) was also calculated. The obtained effect sizes were interpreted according to Cohen (1992): an effect size of between 0.2 and 0.3 would be a small effect; around 0.5, an average effect; and from 0.8, a large effect. Finally, the correlation matrix was computed. Non-parametric Spearman correlations were reported.

Table 1.

Sociodemographic variables and psychological measures; descriptive statistics (means and standard deviations), non-parametric statistic, p values and effect sizes (Cohen's d).

| | Cashier (n = 13) | | Section (n = 13) | | Non-parametric contrast (Mann-Whitney) | Sig. | Cohen's d |
|--|---------------------|-------|---------------------|-------|---|----------|-----------|
| | Mean | SD | Mean | SD | <i>U</i> | <i>p</i> | <i>d</i> |
| SOCIODEMOGRAPHIC | | | | | | | |
| Educational level | 2.54 | 0.97 | 2.46 | 0.97 | 80.00 | .79 | 0.08 |
| Academic grades | 1.77 | 0.44 | 2.38 | 1.55 | 76.00 | .61 | 0.42 |
| Father's educational level | 2.77 | 0.72 | 2.23 | 0.83 | 53.50 | .08 | 0.66 |
| Mother's educational level | 2.85 | 0.90 | 2.23 | 0.92 | 53.50 | .09 | 0.67 |
| Time working | 7.23 | 3.99 | 6.46 | 2.11 | 78.50 | .75 | 0.31 |
| Years in current position | 3.54 | 2.99 | 2.46 | 2.06 | 67.50 | .33 | 0.49 |
| PSYCHOLOGICAL MEASURES | | | | | | | |
| MBI | 9.23 | 2.37 | 9.26 | 2.06 | 84.00 | .98 | 0.01 |
| CBB | 55.31 | 11.66 | 53.07 | 6.81 | 81.50 | .87 | 0.29 |
| Extraversion | 32.23 | 7.11 | 32.46 | 8.14 | 83.00 | .93 | 0.03 |
| Agreeableness | 27.54 | 7.48 | 22.77 | 10.98 | 71.00 | .48 | 0.45 |
| Conscientiousness | 32.92 | 3.64 | 28.61 | 5.63 | 43.50 | .03 | 0.80 |
| Neuroticism (-) (Emotional stability) | 24.00 | 4.65 | 26.15 | 5.81 | 59.50 | .19 | 0.38 |
| Openness | 27.92 | 7.78 | 27.31 | 6.85 | 72.50 | .53 | 0.09 |
| P Factor | 144.61 | 21.17 | 137.31 | 26.37 | 72.00 | .52 | 0.28 |

Table 2.

Correlational matrix (Spearman correlations, N = 26). Cronbach's alpha values are shown at the diagonal).

| | MBI | CBB | E | A | C | N-(ES) | O | P factor |
|--------|-----|--------|---------|---------|-------|--------|--------|----------|
| MBI | .91 | 0.72** | -0.18 | -0.66** | -0.16 | -0.25 | -0.47* | -0.65** |
| CBB | | 0.90 | -0.50** | -0.47* | -0.02 | -0.30 | -0.33 | -0.58** |
| E | | | 0.88 | -0.01 | 0.09 | 0.42* | 0.52** | 0.62** |
| A | | | | 0.93 | 0.33 | 0.24 | 0.34 | 0.68** |
| C | | | | | 0.88 | 0.25 | 0.52** | 0.45** |
| N-(ES) | | | | | | 0.74 | 0.27 | 0.47* |
| O | | | | | | | 0.87 | 0.78** |

Note. MBI-GS: Maslach Burnout Inventory, CBB: Short Questionnaire of Burnout, E: Extraversion, A: Agreeableness, C: Conscientiousness, N-(ES): Neuroticism (-) (Emotional stability), O: Openness, * $p < .05$, ** $p < .01$.

Results

Table 1 shows the descriptive statistics separately for each group factor (cashiers and section workers), along with the non-parametric contrast of means with p values and effect sizes (d).

The non-parametric contrast of means for all the sociodemographic variables and psychological measures revealed an absence of significant differences ($p > 0.05$) between cashiers and section workers (bakery, fishmongers, butchery, etc.), except *Conscientiousness*, where the Cashiers group showed a significantly higher mean than the Section group. Looking at the computed effect sizes (d), moderate sizes for parents' educational level (father 0.66; mother 0.67), years in the current position (0.49) and *Agreeableness* (0.45) can be observed. *Conscientiousness*

shows a large effect size (0.8).

These are the main results (Table 2): (1) burnout scales show a high correlation (0.72); (2) MBI-GS shows high correlations with *Agreeableness* and *Openness*; (3) higher CBB scores are associated with lower scores in *Extraversion* and *Agreeableness*; (4) some personality traits show moderate correlations (*Extraversion* x *Neuroticism* = 0.42, *Extraversion* x *Openness* = 0.52, *Conscientiousness* x *Openness* = 0.52), which support the probable relevance of P (Loehlin, 2012; Van der Linden et al., 2017); and (5) P scores show remarkable negative correlations with the burnout inventories (-0.65 with MBI-GS and -0.58 with CBB).

Figure 1 depicts the scatterplots representing the relationships between (a) burnout inventories (top panel), (b) P and MBI-GS (bottom left), and (c) P and CBB (bottom right).

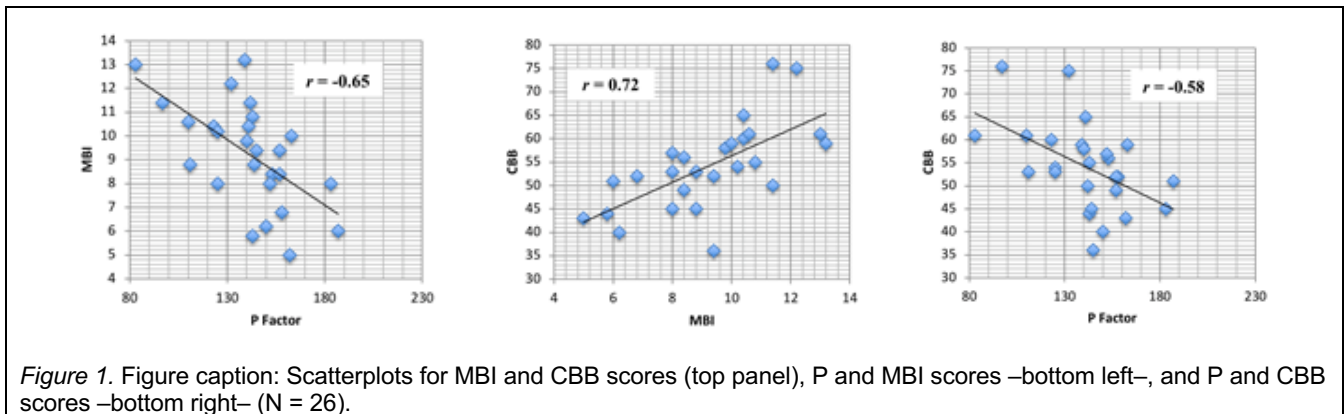


Figure 1. Figure caption: Scatterplots for MBI and CBB scores (top panel), P and MBI scores –bottom left–, and P and CBB scores –bottom right– (N = 26).

In sum, the reported results suggest that workers with higher scores on the burnout scales also show more vulnerable personalities (lower P scores) regardless of their working position in the supermarket, which suggests that individual factors may be more relevant than situational factors in explaining burnout symptoms.

Discussion and Conclusions

Here we have shown that the general factor of personality (GFP or P) obtained from the simple combination of the traits included in the Big Five Model are remarkably correlated with burnout scores obtained after administering two different standardized measurement scales (MBI-GS and CBB): the higher the P, the lower the burnout scores. Greater P values involve higher scores in extraversion, agreeableness, conscientiousness, emotional stability, and openness. This key finding suggests that individuals show distinguishable vulnerability levels to the burnout experience.

Nevertheless, the situation may also have one relevant role when accounting for the obtained burnout scores. We tested the potential relevance of the situation comparing cashiers and other sections' workers of a supermarket. The high emotional component associated with the cashier position may promote emotional burnout (Moreno et al., 2004). The processes of interaction with customers exceed 80 % of their working hours and across this long period cashiers must keep under control and manage their emotions, expressing the positive ones and inhibiting the negative ones. This systematic and persistent socio-emotional management can easily promote a dissonance between the cashier's emotional state and the demanding situation. However, we failed to observe substantial differences in burnout scores between the groups considered in the present study. This negative result underscores the relevance of the individuals' psychological architecture in coping with emotionally demanding situations. Here, this architecture was quantified through the individuals' P scores.

These key findings invite to think about tailored prevention programs aimed at minimizing the likelihood of presenting the burnout syndrome with regards to the in-

creased vulnerability of the workers. Individual differences in this vulnerability can be easily quantified measuring the traits comprised by the Big Five Model and computing *P scores*. This would be especially relevant for situations in which the most vulnerable individuals do not have any chance of avoiding stressful situations at the work place.

We suggest that the guidelines for these tailored prevention programs could be based on the knowledge accumulated so far in differential epidemiology. In this regard, Deary, Weiss, and Batty (2010) summarized and discussed the relationships between individual differences in personality and varied physical and mental health outcomes. They focused on four areas: (1) Personality and physical health, (2) Personality and precursors of the disease, (3) Personality relationships with behavior and sociodemographic risk factors that impact on health, and (4) Personality as a health risk biomarker.

It is now well established that individual differences in personality predict a host of health factors. Thus, for instance, high neuroticism and low conscientiousness are associated with high levels of certain markers of inflammation, morbidity, and mortality. Graham et al. (2017) analyzed 15 databases from several countries in which 44,095 individuals were considered, to find out whether individual differences in the Big Five traits predict premature mortality. Their results showed that *Neuroticism* ($d = 0.64$), *Conscientiousness* ($d = 0.54$), *Extraversion* ($d = 0.57$) and *Agreeableness* ($d = 0.57$) are relevant predictors across datasets.

These findings accumulated in differential epidemiology suggest intervention strategies should be aimed at attenuating the negative impact of having more vulnerable personalities. Basic psychological differences predict health inequalities, and, therefore, "the eventual aim of differential epidemiology is to reduce or eliminate these inequalities and provide information to help people toward their own optimal health through the life course" (Deary et al., 2010, p. 53).

Within the context of the study reported here, there are work situations that may promote and increase the likelihood of developing undesirable syndromes related to emo-

tional exhaustion. However, the situation is just one component of the equation relevant for understanding human behavioral differences. Individuals are not blank slates and their psychological architecture must be explicitly considered (Pinker, 2016; Plomin, DeFries, Knopik, & Neiderhiser, 2016).

Prevention programs could be especially designed for the most vulnerable personalities. Deary et al. (2010) made some proposals in this regard: (1) targeted surveillance (regular and costly monitoring may be directed at those most at risk), (2) tailor and develop effective interventions for certain individuals (intervention for low conscientiousness individuals should be accompanied with incentives in the short-term, regular monitoring and reminders, along with behavior modification by the health-care provider), (3) fitting drugs and personality profiles (a given drug that interferes activity levels and causes drowsiness is not appropriate for individuals with high extraversion scores), and (4) improve the relationships between health-care practitioners and individuals (individuals with lower agreeableness scores may require a greater investment of time before they trust the health-care provider).

Lower levels of *Extraversion*, *Agreeableness*, *Conscientiousness*, *Emotional Stability*, and *Openness* (higher P scores, for short) would increase the negative effects of high emotional situations that could promote professional burnout. The development and explicit training of social skills aimed at reducing the negative impact would benefit the workers, but also the institution in which they behave.

The results reported here invite to think about strategies aimed at preventing the appearance of the symptoms associated with the burnout syndrome. This strategy may increase its efficiency considering a personalized approach, adapted to the psychological architecture of the individuals. There are studies showing that intervention effects interact with personality differences: one size cannot fit all (Chow, Wagner, Lüdtke, Trautwein, & Roberts, 2017). The results reported here are consistent with this interaction: vulnerable workers, due to their personality profiles, should be supported in reducing the likelihood of presenting burnout signs in stressful environ-

ments. Moreover, due to the limited sample size in this study, it would be desirable to verify the findings in a greater sample in future studies.

Limitations and Future Directions

The present work has incorporated the analysis of the general personality factor to the study of burnout in supermarket workers. However, given the very small sample of participants in the study, it was not possible to calculate P using the most recommended factorial analysis method. In addition, the generalizability of the results obtained must remain pending until it is replicated in future studies. We hope that, in the future, other research on burnout will incorporate the analysis of this P factor in studies with a sufficiently large sample to validate those obtained with this sample of supermarket workers. It would be desirable to expand the limited focus of this study and add other professions that suffer from this syndrome (e.g., nurses, teachers, etc.), incorporating the proposed methodology of the P analysis.

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