



**Electronic Journal of Applied Statistical Analysis  
EJASA, Electron. J. App. Stat. Anal.**

<http://siba-ese.unisalento.it/index.php/ejasa/index>

e-ISSN: 2070-5948

DOI: 10.1285/i20705948v13n3p634

**Two is worse than one: the mediating role of precariousness of life in the association between qualitative job insecurity and distress among Italian temporary employees**

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Published: 15 December 2020

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# Two is worse than one: the mediating role of precariousness of life in the association between qualitative job insecurity and distress among Italian temporary employees

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Published: 15 December 2020

Nowadays, the labor market's instability and flexibility has led to increased feelings of uncertainty, insecurity, and precariousness in the workforce. With respect to psychological health, available studies focused mainly on the consequences related to the fear of job loss as a whole (i.e., quantitative job insecurity), in comparison to the consequences of the threat of losing valued job features (i.e., qualitative job insecurity). Understanding the psychological mechanisms that explain the process of stress experiences derived from qualitative job insecurity may contribute to identifying ways to promote healthier workplaces. The present study aimed to examine the mediating role of the precariousness of life in the relationship between qualitative job insecurity and mental distress i.e., emotional exhaustion and psychological symptoms. Precariousness of life is a pervasive syndrome among temporary employees affecting their daily life. The Conservation of Resources (COR) and dual labor market theories were used as the theoretical framework to draw the research hypotheses. The sample was composed of 272 white and blue collar Italian temporary employees. The results of structural equation modelling

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revealed that qualitative job insecurity was positively and significantly related to emotional exhaustion and psychological symptoms. Furthermore, these relationships were mediated by precariousness of life. The goodness of fit indices of mediation model were satisfactory and indirect effects were significant, therefore supporting our hypotheses. This study provided additional evidence concerning job insecurity as it focused on temporary workers, examining the effects on mental health by qualitative job insecurity via precariousness of life. Practical implications are discussed.

**Keywords:** qualitative job insecurity, precariousness of life, emotional exhaustion, psychological symptoms, temporary employees, mediation analysis.

## 1 Introduction

In the last decades, the Western labor market has experienced a long wave of important and rapid changes that have directly involved both workers and organizations. In particular, such global economic trends were characterized by a high degree of competition and turbulence, which is reflected in the flexibility of labor markets, work organizations, and labor relations (Allvin et al., 2013; Eurostat, 2019).

This scenario, exacerbated by the persistent economic crisis, has led many organizations to favor more flexible organizational structures (Shoss, 2017). Patterns of employment have become increasingly unstable and insecure, or precarious, with temporary employment becoming more and more mainstream.

Considering the European labor market, the economic trend continues to be rather weak (Organisation for Economic Co-operation and Development, 2018). With regard to Italy, the economic context has still shown a positive trend, albeit in a progressive and decisive slowdown (ISTAT, 2019). The most common type of employment contract activated is still fixed-term, reaching the pre-crisis levels of 2008, with a strong imbalance between the private and public sectors, with the latter having the majority of permanent contracts (ISTAT, 2019). Although the increasing number of temporary workers responds to changing organizational needs, the individual perceptions of uncertainty and job insecurity have also increased within the workforce (European Commission, 2018).

Greenhalg and Rosenblatt (1984) identified two important facets of job insecurity, that Hellgren, Sverke and Isaksson (1999) named as quantitative job insecurity, i.e., the fear of losing a job as a whole, and qualitative job insecurity, i.e., worries about losing job qualities and features. Both dimensions are considered powerful job stressors, with detrimental consequences for both the individual and the organization (Cheng and Chan, 2008; De Witte et al., 2010; LoPresti and Nonnis, 2012; Sverke, Hellgren and Näswall, 2002). One of these individual consequences is mental distress, a particularly studied outcome of quantitative job insecurity (e.g., De Witte, Pienaar and De Cuyper, 2016; Sverke and Hellgren, 2002). As a matter of fact, few studies have examined the positive relationship between qualitative job insecurity and psychological or mental distress (e.g., Chirumbolo et al., 2017; Tu et al., 2020). These previous studies were carried out with

samples mainly composed by permanent employees. Finally, there is little understanding about the explanatory mechanisms that underlie the effect of qualitative job insecurity on mental distress, which could be considered as a second order construct characterized by different dimensions (Ciavolino, 2012).

Therefore, in order to address these gaps in the literature, we propose the precariousness of life as a potential mediator in the relationship between qualitative job insecurity and mental distress, based on the conservation of resources theory (Hobfoll, 1989, 2001) and the dual labor market theory (Reich, Gordon and Edwards, 1973).

## 2 Theoretical Framework

### 2.1 Qualitative job insecurity and mental distress

Qualitative job insecurity concerns the perceived threat about the future of one's job features (Hellgren, Sverke and Isaksson, 1999) and its consequences. In comparison to quantitative job insecurity, qualitative job insecurity concerns have been rather under-explored (Brondino et al., 2020). Hellgren, Sverke and Isaksson (1999) argued that qualitative job insecurity is not related to the threat of the continuance of one's own employment per se (i.e., quantitative job insecurity), but it concerns the insecurity towards the working conditions one may experience in the future. In other words, qualitative job insecurity concerns the worry about important and complementary qualities and features of job activity, such as increased salary, career development, or social reward.

As a work stressor, qualitative job insecurity may have important implications for the strain on employees (Vander Elst et al., 2014). The Conservation of Resources (hereafter, COR) theory (Hobfoll, 1989, 2001), as a stress theory, is often cited in order to explain the negative consequences of qualitative job insecurity on mental health (e.g., Chirumbolo et al., 2017; Vander Elst et al., 2014). According to COR theory, individuals' well-being and health depend on resource availability, valued as highly important. Therefore, individuals tend to obtain, maintain, and protect their own resources classically distinguished into objects, personal characteristics, and conditions (Hobfoll, 1989). Among conditions, stable employment and its material and social benefits are highly valued resources by the majority of people (Chirumbolo, Callea and Urbini, 2020). It derives that a potential loss of job resources, i.e., the threat that working conditions might worsen in the future, is a stressor, which in turn may be related to negative effects such as different strains.

These theoretical assumptions have been supported by a few studies, presenting evidence about the positive association between qualitative job insecurity and mental distress. Specifically, qualitative job insecurity is positively associated to job strain and psychological withdrawal (Vander Elst et al., 2014), anxiety and depression (Boya et al., 2018), emotional exhaustion and psychological symptoms (Callea et al., 2019), and psychological stress (Chirumbolo et al., 2017). Furthermore, qualitative job insecurity is negatively associated to psychological health (De Witte et al., 2010) and mental well-being (Richter et al., 2013). The previously cited studies considered samples composed of high percentages of permanent employees rather than temporary ones. Therefore, the

consequences of qualitative job insecurity on mental distress deserves more attention in the current labor market.

Based on COR theory and previous studies, we predict that potential loss of important functions associated with work, i.e., qualitative job insecurity, may lead to increased mental distress, also for temporary employees. Therefore, we hypothesize that:

- $H_1$ : Qualitative job insecurity is positively related to emotional exhaustion ( $H_{1a}$ ) and psychological symptoms ( $H_{1b}$ ) in temporary employees.

## 2.2 The relationship between qualitative job insecurity and mental distress: Precariousness of life as mediator

Even though there are some empirical studies that support the positive relationship between qualitative job insecurity and mental distress, to the best of our knowledge, no studies were carried out on temporary employees. According to the Organization for Economic Co-operation and Development (OECD, 2002), temporary employment may be defined as “dependent employment of limited duration” (p. 170).

The few theoretical explanations for the negative consequences of qualitative job insecurity on health are derived from appraisal theory (Lazarus and Folkman, 1984) using the perceived control as mediator (e.g., Urbanaviciute et al., 2015; Vander Elst et al., 2014). In our perspective, this theory is not applicable to temporary employees, because they do not have any control about the continuity of own employment.

Therefore, we propose precariousness of life as an explanatory factor underlying the relationship between qualitative job insecurity and mental distress, in line with the dual labor market theory (Reich et al., 1973). The dual labor market theory (Reich, Gordon and Edwards, 1973) distinguishes two different work profiles in respect to contract type: the core group composed of permanent workers and the peripheral group composed of non-standard workers which includes temporary workers (Wagenaar, Taris and Houtman, 2012). The workers in the core group can rely on the continuity of employment and financial and insurance coverage, because they are considered crucial to the organization’s functioning (Martinez, De Cuyper and De Witte, 2010). Conversely, workers in the peripheral group feel the lack of continuity of employment, because their employment depends on organizational needs and terms of their contract (De Cuyper, Notelaers and De Witte, 2009). As belonging to the peripheral group, temporary workers have higher levels of quantitative and qualitative job insecurity and consequently uncertainty about the future of their job (De Cuyper and De Witte, 2007).

Based on the dual labor market theory (Reich, Gordon and Edwards, 1973), we predict that the threat of losing valued job features, i.e., qualitative job insecurity, may lead temporary employees to perceive higher level of precariousness of life. Precariousness of life is defined as a pervasive syndrome of temporary employees that affects daily life (Callea, Urbini and LoPresti, 2016). Specifically, it is characterized by disinterest toward current work, distrust toward one’s professional future, and negative emotions (Callea, Urbini and Bucknor, 2012).

When temporary employees are not to able to cope with daily challenges, i.e., continuity

of one's own employment, they may feel personal failure, apathy, relational detachment from one's job, and fear about one's professional future. Precariousness of life does not coincide with precariousness of employment, i.e., temporary employment; as matter of fact, not all temporary workers feel precariousness of life (LoPresti, Callea and Pluviano, 2019). Precariousness of employment is an objective condition derived from non-standard contractual forms (such as a fixed-term contract), while precariousness of life is a subjective perception about the negative impact of the contract term on the present and future. Following assumptions of job insecurity (Callea et al., 2019), workers in the same objective job situation may have different perceptions of job insecurity and, consequently, of precariousness of life (LoPresti, Callea and Pluviano, 2019). Therefore, we hypothesize that:

- $H_2$ : Qualitative job insecurity is positively related to precariousness of life.

Furthermore, few previous studies showed that precariousness of life was positively related to mental distress. Specifically, precariousness of life was associated to anxiety and depression (Callea, Urbini and Bucknor, 2012; Callea, Urbini and LoPresti, 2016) and to psychological symptoms (LoPresti, Callea and Pluviano, 2019). Based on the dual labor market theory (Reich, Gordon and Edwards, 1973) and previous studies, we predict that the threat of losing valued job features, i.e., qualitative job insecurity, may lead temporary employment workers to perceive high level of precariousness of life. In turn, precariousness of life may result in poorer health, i.e., an increase in emotional exhaustion and psychological symptoms. Therefore, we hypothesize that:

- $H_3$ : Precariousness of life is positively related to emotional exhaustion ( $H_{3a}$ ) and psychological symptoms ( $H_{3b}$ );
- $H_4$ : Precariousness of life mediates the positive relationship between qualitative job insecurity and emotional exhaustion ( $H_{4a}$ ) and psychological symptoms ( $H_{4b}$ ).

In sum, a higher level of qualitative job insecurity is expected to increase the perceived precariousness of life that in turn will be associated with higher levels of emotional exhaustion and psychological symptoms.

## 3 Materials and Methods

### 3.1 Procedure and participants

Data collection was designed to respect the privacy and anonymity of the participants, ensuring information confidentiality. The data was analyzed in an aggregated manner, via Computer Assisted Web Interview (CAWI). On the first page, we requested that the participants read and accept a written informed consent, with the description of the research purpose. Participants were selected via a snowball procedure, beginning with temporary workers known to the researchers. After completion the questionnaire, each participant was asked to send to other temporary workers the link via mail. The sample

was composed of 272 temporary employees (44.9% men and 55.1% women). In regard to age, 69.9% were less than 35 years old, 19.1% were between 36 and 55 years old, and 11% were more than 56 years old. In regard to education, 11.4% completed only junior high school, 44.5% held a high school degree, and 44.1% had a university degree. About 58.7% of the participants were single, 38.8% were married (or lived with a partner), and the remaining were divorced (4.5%).

Furthermore, 35.7% worked in private firms and 64.3% in the public sector. In regard to private firms, 52% had a full-time fixed-term contract, while 48% had a part-time fixed-term contract. The majority (about 87%) were white-collar and the remaining were blue-collar (about 13%). On average, participants worked for about 10 years. The organizational tenure average was about four years. In regard to public firms, 51% had a full-time fixed-term contract, while 49% had a part-time fixed-term contract. The majority (about 67%) were white-collars and the remaining were blue-collars (about 33%). On average, participants worked for about seven years. The organizational tenure average was about three years.

## **3.2 Measures**

### **3.2.1 Qualitative job insecurity**

Qualitative job insecurity was evaluated through the scale developed by Chirumbolo and Areni (2010). The scale is composed of five items measuring employees' perceptions of threats to the continuity of important job features (sample item, I think that the career opportunities in my organization will not be favorable). Participants were asked to express their own agreement or disagreement with the statements on a Likert scale (from 1 = strongly disagree to 5 = strongly agree). High scores indicate higher levels of qualitative job insecurity. Cronbach's alpha was 0.73.

### **3.2.2 Precariousness of life**

Precariousness of life was measured through the short form of the Precariousness of Life Inventory (PLI-9) (Callea, Urbini and LoPresti, 2016), composed of nine items. PLI-9 evaluates indifference toward the job, distrust of professional future, and the emotional consequences on daily life (sample item, I feel demoralized when I think that I will shortly change my job). Responses were given on a seven-point Likert scale (1 = completely disagree, 7 = completely agree). High scores mean higher levels of precariousness of life. Cronbach's alpha was 0.86.

### **3.2.3 Psychological symptoms**

Psychological symptoms were evaluated through the scale by (Lehto and Sutela, 2008), composed of six items. Participants were asked to rate how often they had recently suffered from six negative symptoms (sample item, I felt nervous and/or irritable) on a seven-point frequency scale (0 = never, 6 = always/every day). High scores show higher levels of negative psychological symptoms. Cronbach's alpha was 0.90.

### 3.2.4 Emotional exhaustion

Emotional exhaustion was measured through five items from the Maslach Burnout Inventory (Maslach, 1981); Italian validation by Sirigatti and Stefanile, 1993). These five items measured emotional draining and exhaustion derived from one's own job (sample item, I feel emotionally drained from my work). Participants were asked to rate on a 7-point frequency scale (0 = never, 6 = always/everyday). High scores imply higher levels of Emotional exhaustion. Cronbach's alpha was 0.87

### 3.3 Data analysis

The data were analyzed using SPSS 23 and Mplus 8.53. Preliminary analyses, i.e., correlations between control variables, qualitative job insecurity, precariousness of life, emotional exhaustion, and psychological symptoms, were performed.

In order to test the measurement model (Brown, 2015) four models were compared: (M1) the hypothesized four-factor model (i.e., qualitative job insecurity, precariousness of life, emotional exhaustion, and psychological symptoms); a three-factor model (M2) where emotional exhaustion and psychological symptoms were loaded on a single mental distress factor; a two-factor model (M3) where qualitative job insecurity and precariousness of life were loaded on a single stressor factor; a one-factor model (M4) in which all parcels were loaded on a single factor (Posadkoff et al., 2003). Furthermore, a Confirmatory Factor Analysis (CFA) was performed using all items in order to better discriminate between qualitative job insecurity and precariousness of life and between emotional exhaustion and psychological symptoms. These models were compared via the  $\chi^2$  difference test  $\Delta(\chi)^2$ . A significant difference suggests that the model fit significantly get worse.

Mediation analyses with latent variables (MacKinnon, 2008) were performed via structural equation modeling, via ML esteem, using two random composites of items (parcels) as indicators of each latent variable (e.g., Little et al., 2013) and socio-demographical and job variables (gender, marital status, age, education, organizational tenure, total tenure, contract type, organizational sector, and occupation) were used as covariates. Item parcels were randomly selected but contained a balanced number of items with comparable reliabilities.

Overall model fit was evaluated with the  $\chi^2$  statistic along with the following indices: the comparative fit index (CFI); the non-normed fit index (NNFI); the root mean squared error of approximation (RMSEA); and the standardized root mean square residual (SRMR). In particular, for NNFI and CFI values between 0.90 and 0.95 are considered acceptable. RMSEA and SRMR values indicate a good fit when they are smaller than or equal to 0.08. In order to test the mediation hypotheses, we followed the strategy recommended by James et al. (2006), consisting of two steps. In the first step the full mediation model (i.e., without the direct effects) was tested; in the second step the partial mediation model, including the direct effects from job insecurity to OCB and task performance, was tested. The two nested models were compared via the  $\Delta(\chi)^2$  test. When  $\Delta(\chi)^2$  was not significant, the full mediation model had to be preferred because is more parsimonious.



Finally, in order to evaluate the significance of direct and indirect effects, we used bootstrapping (Preacher and Hayes, 2008) with 5,000 samples with replacement from the full sample to construct bias-corrected 95 percent confidence intervals (CI). The indirect effect is significant when 0 is not included in the CI. Bootstrapping is one of the more valid and powerful methods for testing mediating variable effects (MacKinnon, Lockwood and Williams, 2004) because it does not impose the assumption of normality of the sampling distribution.

## **4 Results**

### **4.1 Descriptive statistics and correlations**

Table 1 shows the means, standard deviations, and Cronbach's alpha coefficients for the study variables and their correlations with covariates. As expected, qualitative job insecurity was significantly and positively related to precariousness of life, emotional exhaustion, and psychological symptoms. Furthermore, precariousness of life was significantly and positively related to emotional exhaustion and psychological symptoms, which in turn were positively correlated.

Age, marital status and total tenure were positively and significantly related to qualitative job insecurity and precariousness of life. These findings show that employees with a higher age and total tenure feel more insecure about the continuity of important job features. In other words, the occupational uncertainty increases with the personal experience, i.e., age and total tenure. With respect to marital status, married/lived with a partner and divorced/separated had higher level of qualitative job insecurity and precariousness of life than single people. This result suggests that employees that have to care for other people are more worried about the potentially loss of important functions associated with work, including economic functions. Education and contract type were significantly (negatively and positively, respectively) related to four studied variables. Gender, organizational tenure, occupation and organizational sector were not significantly related to the four studied variables.

Table 1: Descriptive statistics and correlations

**Notes:** Gender (males = 0, females = 1); Marital status (single = 0, married/lived with a partner = 1, divorced/separated = 3); Age (18-25 years old = 1, 26-35 years old = 2, 36-45 years old = 3, 46-55 years old = 4, 56-65 years old = 5, > 65 years old = 6); Education (compulsory school = 0, high school degree = 1, university degree = 2); Organizational tenure (years); Total tenure (years); contract type (full-time = 0, part-time = 1); Occupation (white collar = 0, blue collar = 1); Organizational sector (private = 0, public = 1); \* $p < 0.05$ ; \*\* $p < 0.01$ .

| Variables                         | Qualitative job insecurity | Precariousness of life | Psychological symptoms | Emotional exhaustion |
|-----------------------------------|----------------------------|------------------------|------------------------|----------------------|
| <b>Qualitative job insecurity</b> |                            |                        |                        |                      |
| Precariousness of life            | 0.63**                     |                        |                        |                      |
| Psychological symptoms            | 0.50**                     | 0.68**                 |                        |                      |
| Emotional-exhaustion              | 0.46**                     | 0.62**                 | 0.70**                 |                      |
| Gender                            | 0.06                       | 0.10                   | 0.09                   | 0.04                 |
| Marital status                    | 0.20**                     | 0.16**                 | 0.09                   | 0.11                 |
| Age                               | 0.16**                     | 0.16**                 | 0.09                   | 0.08                 |
| Education                         | -0.20**                    | -0.29**                | -0.36**                | -0.36**              |
| Organizational tenure             | 0.01                       | 0.06                   | -0.02                  | 0.01                 |
| Total tenure                      | 0.23**                     | 0.19**                 | 0.11                   | 0.06                 |
| Contract type                     | 0.18**                     | 0.17**                 | 0.17**                 | 0.14*                |
| Occupation                        | -0.08                      | -0.01                  | 0.09                   | 0.10                 |
| Organizational sector             | -0.11                      | -0.04                  | 0.09                   | -0.01                |
| Mean                              | 2.99                       | 3.35                   | 2.03                   | 2.33                 |
| SD                                | 0.86                       | 1.23                   | 1.38                   | 1.31                 |

### 4.2 Measurement model

Four alternative nested models were tested and compared via  $\Delta\chi^2$ . Results of CFA pointed out that the hypothesized four-factor model (M1), in which parcels of each variable only loaded in the hypothesized variable, showed very good fit indices:  $\chi^2 (14) = 24.07$ ,  $p = ns$ , CFI = 0.992, TLI = 0.985, RMSEA = 0.051, SRMR = 0.019). The comparison between other models with M1 showed that fit indices significantly worsen (Table 2). Therefore, these results indicate that our hypothesized four-factor model is well supported and should be preferred.

Furthermore, the results of CFA with all items suggested that fit indices of the one-factor model (qualitative job insecurity + precariousness of life) significantly get worse than two-factor model in which two measure are separated,  $\Delta\chi^2 (1) = 105.21$ ,  $p < 0.01$ . In the same way, the one-factor model (emotional exhaustion + psychological symptoms) is significantly worse than the two-factor model in which two measure are separated,  $\Delta\chi^2 (1) = 183.94$ ,  $p < 0.01$ .

Finally, as qualitative job insecurity correlated to precariousness of life and emotional exhaustion correlated to psychological symptoms, we performed to discriminant analyses. Specifically, we compared correlation coefficient of each couple to 1. Results of discrimination analyses showed that correlation coefficients were different than 1: for  $r = .63$ ,  $z = -31.38$ ,  $p < 0.001$ ; for  $r = .70$ ,  $z = -29.21$ ,  $p < 0.001$ . Therefore, the results further supported that qualitative job insecurity was sufficiently distinct by precariousness of life as soon as emotional exhaustion was sufficiently distinct by psychological symptoms.

Table 2: Descriptive statistics and correlations

*Notes:*  $M_1$  - four-factor model: qualitative job insecurity, precariousness of life, emotional exhaustion and psychological symptoms;  $M_2$  - three-factor model: qualitative job insecurity, precariousness of life and mental distress (emotional exhaustion + psychological symptoms);  $M_3$  - two-factor model: stressor factor (qualitative job insecurity + precariousness of life) and mental distress (emotional exhaustion + psychological symptoms);  $M_4$  - one-factor model: a global factor (qualitative job insecurity + precariousness of life + emotional exhaustion + psychological symptoms). \*\* $p < 0.01$ .

| Model | $\chi^2$ | df | CFI   | TLI   | RMSEA | SRMR  | $\Delta\chi^2(\dots-M_1)$ | $\Delta df(\dots-M_1)$ |
|-------|----------|----|-------|-------|-------|-------|---------------------------|------------------------|
| $M_1$ | 24.07    | 14 | 0.992 | 0.985 | 0.051 | 0.019 | -                         | -                      |
| $M_2$ | 89.04    | 17 | 0.945 | 0.909 | 0.125 | 0.036 | 64.97**                   | 3                      |
| $M_3$ | 125.31   | 19 | 0.918 | 0.880 | 0.143 | 0.049 | 101.24**                  | 5                      |
| $M_4$ | 217.91   | 20 | 0.848 | 0.787 | 0.191 | 0.070 | 193.84**                  | 6                      |

### 4.3 Tests of the mediation hypotheses

A comparison between the fit of the full mediation model and the fit of a competitive partial mediation model (James et al., 2006), including the covariates, was carried out.

The full mediation model showed a satisfactory fit,  $\chi^2(70) = 92.70$ ,  $p > 0.01$ , CFI = 0.96, TLI = 0.95, RMSEA = 0.04 [0.01, 0.06], SRMR = 0.05. The partial mediation model, including direct effects from qualitative job insecurity related to psychological symptoms and emotional exhaustion, also showed good fit indices,  $\chi^2(68) = 91.58$ ,  $p > 0.01$ , CFI = 0.96, TLI = 0.94, RMSEA = 0.04 [0.02, 0.07], SRMR = 0.05. The chi-squared difference was not significant,  $\Delta\chi^2(2) = 1.12$ ,  $p = \text{ns}$ . As the partial mediation model did not significantly improve the model fit, the full mediation model without direct effect must be preferred because it is more parsimonious (Figure 1).

The results showed that the total effect of qualitative job insecurity on emotional exhaustion and psychological symptoms was significant, supporting  $H_{1a}$  and  $H_{1b}$ . Specifically, total effect was  $\beta = 0.54$ ,  $p < 0.01$  (bootstrap CI between 0.32 and 0.72) and  $\beta = 0.61$ ,  $p < 0.05$  (bootstrap CI was between 0.40 and 0.82), for emotional exhaustion and psychological symptoms respectively. Furthermore, the positive effect of qualitative job insecurity on precariousness of life was significant,  $\beta = 0.67$  ( $p < 0.01$ ), supporting  $H_2$ . Furthermore, precariousness of life had a significant and positive effect both on emotional exhaustion,  $\beta = 0.77$  ( $p < 0.01$ ), and psychological symptoms  $\beta = 0.64$  ( $p < 0.01$ ), supporting  $H_{3a}$  and  $H_{3b}$ .

Finally, the indirect effect, qualitative job insecurity on emotional exhaustion via precariousness of life, was significant,  $\beta = 0.50$  ( $p < 0.05$ ), bootstrap CI was between 0.25 and 0.96, supporting  $H_{4a}$ . Therefore, precariousness of life mediated the association between qualitative job insecurity on emotional exhaustion, explaining almost 93% of variance. In addition, the indirect effect, qualitative job insecurity on psychological symptoms, was significant,  $\beta = 0.51$  ( $p < 0.05$ ), bootstrap CI was between 0.20 and 0.80, supporting  $H_{4b}$ . This indirect effect explained the almost 82% of variance.

In respect to covariates, education was negatively related to psychological symptoms, total tenure was negatively related to emotional exhaustion, while organizational sector was positively related both emotional exhaustion and psychological symptoms. Other covariates were not significantly related to the other two outcomes. Figure 1 shows the full mediation model, including the significant covariates.

In sum, the effect of qualitative job insecurity on mental distress completely passes through precariousness of life. In other terms, precariousness of life totally mediated the relationship between qualitative job insecurity, psychological symptoms, and emotional exhaustion.

## 5 Discussion

As previously outlined, labor markets have experienced significant change in recent decades, including the rapid expansion of temporary workers and their rising perceptions of uncertainty in the workplace and job insecurity (European Commission, 2018). To date, most research on the consequences of quantitative and qualitative job insecurity is focused on permanent workers. Therefore, research is also needed on the consequences of qualitative job insecurity that could affect the temporary worker's psychological health and well-being.

Focusing on temporary workers, this study aimed to provide new evidence for the role of qualitative job insecurity and precariousness of life as risk factors for psychological health and well-being. The results lent support for our hypotheses, that is, qualitative job insecurity and precariousness of life were considerably positively correlated with psychological symptoms and emotional exhaustion. Furthermore, precariousness of life mediated the relationship between qualitative job insecurity and mental distress. Based on this premise, our proposal to examine the precariousness of life processes between qualitative job insecurity and mental distress damage, in explaining the job insecurity-psychological health outcomes association, was supported in light of two reasons.

First, qualitative job insecurity is a well-established work stressor with a greater impact than quantitative job insecurity (Callea et al., 2019; Chirumbolo et al., 2017). Temporary workers are aware of their contract expiration terms and therefore, in line with COR theory, they fear to lose important job resources, such as salary, career development, or social reward. Consequently, following the dual labor market theory, temporary workers under threat of losing valued job features may perceive high levels of precariousness of life.

Second, workplace stress is a growing concern among employers. From a practical point of view, employees unsure about their careers and their organizational development may have lower levels of psychological health (De Witte et al., 2010) and mental well-being (Richter et al., 2013). Noteworthy are the results about precariousness of life as a mediator between qualitative job insecurity and psychological health. In line with the dual labor market theory (Reich, Gordon and Edwards, 1973), we advanced precariousness of life as a possible underlying mechanism. The proposed mediation model sheds new light to better understand the process by which a work stressor such as qualitative job insecurity influences the perception of the quality of daily work life and, in turn, the psychological health and well-being of temporary workers. Precariousness of life fully mediated the effects of qualitative job insecurity on psychological outcomes. This means that worries about the future of one's job qualities leads to a generalized fear for one's own professional future with negative consequences on psychological symptoms and emotional exhaustion. Results of the present study help to clarify the relationship among qualitative job insecurity and psychological symptoms and emotional exhaustion, showing the mediation role of precariousness of life with some important theoretical and practical implications.

The present paper may contribute to the existing job insecurity literature in several ways. First, we study the relationship between qualitative job insecurity and mental stress on a sample of temporary employees. A topic that has received rather limited attention in previous research. As a matter of fact, the most of previous research about the consequences of qualitative job insecurity on mental stress considered samples composed of a high percentage of permanent employees (e.g., Chirumbolo et al., 2017; Tu et al., 2020). Therefore, this study contributes by highlighting an overlooked sample, i.e., temporary employees, which is constantly increasing in the recent labor market. Second, we propose an explanation about the negative effect of qualitative job insecurity on the mental health of temporary employees via precariousness of life. Moreover, qualitative job insecurity may spill into personal and family life, leading to a condition of general

precariousness and consequently to decreased mental health.

Taking a pragmatic perspective, these findings showed the importance of reducing qualitative job insecurity, because the effects may rebound on workers' daily work life, impacting their psychological health and well-being (Abildgaard, Nielsen and Sverke, 2018). In the contemporary work life and even more in the future, it will be especially important to prevent and attenuate the negative consequences of qualitative job insecurity through stress prevention programs and the creation of healthy workplaces.

Considering qualitative job insecurity as a work stressor, organizations could promote specific interventions for temporary workers via mindfulness-based stress reduction programs. Mindfulness, referred to one's conscious attention on the environment and present moment (Brown and Ryan, 2003), is an individual attribute that can influence how individuals are affected by a negative environment. Recent studies have explained the importance of mindfulness in the workplace (e.g., Bajaj, Gupta and Pande, 2016; Daubenmier et al., 2014). Mindfulness programs were found to have a positive impact on the overall well-being of employees (e.g., Aikens et al., 2014; Ugwu and Asogwa, 2015), mitigating, for example, burnout (Taylor and Millear, 2020). Human resource practices could include training temporary employees to become more able to enhance the capacity to manage distressed states related to emotional exhaustion and psychological symptoms. These findings suggest that policymakers and organizations should adapt their policies to a vulnerable workforce, i.e., insecure temporary workers.

## 5.1 Limitations

There are some drawbacks to this study. First, temporary workers were not selected by means of a probabilistic procedure and they are not representative of the different types of temporary employment. Although we used the bootstrapping method, in order to overcome these shortcomings, further research using larger samples with different types of temporary workers are necessary. Second, the cross-sectional nature of the study limited the possibility of establishing causal relationships between the variables. Nevertheless, the nature of temporary employment may hamper the realization of a longitudinal design. Third, the self-reported data were another limitation, because people may not perceive themselves accurately. However, an individual's perception of qualitative job insecurity is highly subjective, and a self-report measure seems more than appropriate.

## 6 Conclusions

To conclude, the present paper provided some preliminary evidence about new psychological mechanisms that may explain the process of stress experiences derived from qualitative job insecurity. Future studies should further examine these relationships to support our predictions.

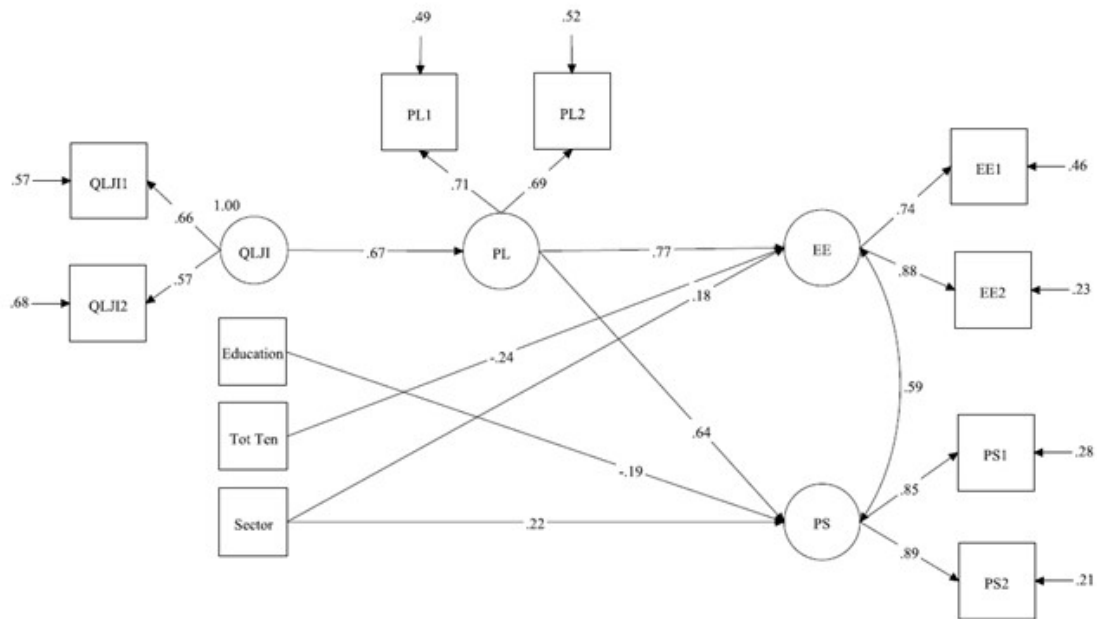


Figure 1: Full mediation model.

**Note:** Only significant relationships are reported, with standardized coefficients. QLJI1 and QLJI2 = parcels of qualitative job insecurity (QLJI); PL1 and PL2 = parcels of precariousness of life (PL); EE1 and EE2 = parcels of emotional exhaustion (EE); PS1 and PS2 = parcels of psychological symptoms (PS). Education (compulsory school = 0, high school degree = 1, university degree = 2); Tot Ten = Total tenure (years); Sector = Organizational sector (private = 0, public = 1).

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