Gender differences in the use of alcohol and prescription drugs in relation to job insecurity.

Testing a model of mediating factors

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ABSTRACT

Background. The results of several studies suggest that economy-related stressors are less distressing for women compared with men. This study proposed to examine the relationship of perceived job insecurity with the use of licit drugs using a theoretical model that considered antecedents and mediators of this association, in order to identify differences between working men and women.

Methods. Using information from the Catalan Health Survey (2010-2014), we selected working individuals aged 16 to 64 who were primary providers of household income (N=5,315). The outcomes were two measures of alcohol consumption (heavy drinking and binge drinking) and the use of hypnotics/sedatives. As antecedents of the exposure to job insecurity we considered the type of contractual relationship and occupational class. The mediating factors were poor mental health, household structure and the hours of housework per week. The theoretical model was assessed using path analysis where the moderating effect of gender was considered in all the associations.

Results. No differences in the prevalence of job insecurity were found between men and women (17%). Job insecurity (Odds Ratio [OR]=1.35, 95% Confidence Interval[CI]=1.23-1.48) and house workload (OR=1.01, 95%CI=1.00-1.02) were positively associated with poor mental health, with no significant interactions with gender. Poor mental health was significantly associated with binge drinking (OR=1.23, 95%CI=1.13-1.33) and with the use of hypnotics/sedatives (OR=1.71, 95%CI=1.53-1.91). House workload showed a direct negative association with binge drinking (OR=0.99, 95%CI=0.98-1.00), while those in households with no children were more likely to be binge drinkers, with no significant interactions with gender. An alternative model had better fitting results for heavy drinking.

Conclusion. No gender differences were found in the association of job insecurity with mental health nor with the use of substances among primary providers of household income, emphasising the importance of social roles when assessing differences in mental health among men and women.

Keywords: Job insecurity, mental health, gender, alcohol, prescription drugs, Spain, path analysis.

Introduction

The persistent negative effects of the economic crisis that began at the end of 2007, commonly referred to as the Great Recession, include job loss and worse employment conditions. The strong association between unemployment and poor health is widely recognised (Dooley, Fielding, and Levi 1996; Linn, Sandifer, and Stein 1985; Martikainen and Valkonen 1996), but also the effects of job insecurity (Griep et al., 2015; Heaney et al., 1994; Sverke et al., 2002). Job insecurity challenges health and well-being due to the psychological strain associated with lack of control over one's situation, anticipation of future unemployment and subsequent economic strain and family problems (De Witte, 1999; Karasek and Theorell, 1990; Sverke et al., 2002). Perceived job insecurity could be even more stressful than actual job loss or unemployment because the uncertainty as to whether the job loss will actually occur prevents the deployment of instrumental strategies of coping.

Self-perceived job insecurity is the result of an evaluation process that takes into account both contextual factors (e.g. legislation standards, economic environment, labour market characteristics, organizational change) and the individual resources (education, family responsibilities or employability). Thus, self-perceived job insecurity is the result of an individual assessment by an actor embedded in a number of different contexts (Erlinghagen, 2008). Worsening labour market conditions may affect differentially by gender, age or socioeconomic position (De Witte 1999; Artazcoz et al. 2005). Working on a project basis and temporary employment could be in line with the expectations of certain groups, like young workers, professionals and employees in emerging industry sectors.

Studies in different locations have found that men's mental health is more vulnerable than women's to the effects of economic downturns (Bartoll et al., 2014; Katikireddi et al., 2012) and unemployment (Paul and Moser, 2009). Likewise, job insecurity has been more consistently associated with poor mental health (Lam et al., 2014; Sirviö et al., 2012) and deteriorating self-reported health (Cheng et al., 2005; Ferrie et al., 1995) in men than in women; while other studies have found differences in health indicators in men and women with attributed job insecurity (Kalil et al., 2009) or in a context of changing work environment (Nishikitani et al., 2012). Besides, work-related stress has been more consistently associated with the likelihood of alcohol consumption or alcohol dependence among men (Siegrist and Rödel 2006; Virtanen et al. 2008; Colell et al. 2014a), while the use of hypnotics and sedatives has been associated with work-related psychosocial risk factors among both men and women

(Colell et al., 2014b; Jacquinet-Salord et al., 1993; Pelfrene et al., 2004). Furthermore, the few studies on the mediating effect of psychological distress (Brown and Richman, 2012; Peirce et al., 1994) and somatic complaints (Brown et al., 2014; Vijayasiri et al., 2012) in the association between economic stressors and alcohol-related outcomes found that the mediating effect was more pronounced among men than among women.

These results could suggest that the experience of economy-related stressors is less distressing for women compared to men, or that their correlation with health or health-related behaviours is different in men and women. The type of outcome considered in any given study may be partly responsible for the mixed results, but also the failure to acknowledge the dissimilar conditions encompassing the lives of working men and women (Wethington et al., 1987). In this respect, Artazcoz et al (2004) found that the deleterious effects of unemployment on mental health lessened for women with children at home.

Men and women differ in their risk of physical and psychological morbidity (Gove, 1984; Wingard, 1984) and it has also been posited that they may be differentially susceptible to the effects of stress (Kessler and McLeod, 1984). Gender differences in coping with stressful events can be explained by two main hypotheses: the socialisation hypothesis and the role-constraint hypothesis. According to the socialisation hypothesis, men and women are equipped with different coping patterns. The traditional female gender role prescribes dependence, affiliation, emotional expressiveness, a lack of assertiveness and the subordination of one's own needs to those of others. On the other hand, the traditional male role prescribes qualities such as autonomy, self-confidence, assertiveness, instrumentality and being goal-oriented. Consequently, similar levels of hardship and distress are likely to produce emotional problems in women and behavioural problems in men (Aneshensel et al., 1991). Women qualify for diagnoses of affective disorders more frequently than men, whereas men qualify for diagnoses of alcohol and drug abuse more frequently than women (Alonso et al., 2004; Boyd et al., 2015). Conversely, the role-constraint hypothesis argues that gender differences in the response to stressors may be explained by differences in the likelihood of men and women occupying particular social roles and in the resources and opportunities attached to these roles (Aneshensel and Pearlin, 1987).

Attempts to test the socialisation and role-constraint theories in the late eighties and nineties concluded that men and women did not differ in the ways they coped with similar role stressors (Rosario et al., 1988). Gender differences in the impact of stress were disorder-specific, but did not indicate general differences in susceptibility (Aneshensel et al., 1991;

Mirowsky and Ross, 1995). Substance use is a common behavioural response for coping with distress. Both gender norms and the opportunities for exposure to the substance will influence men's and women's differential tendency to use a particular substance (Biener, 1987). The stronger tendency for women to acknowledge morbidity and to use health services compared to men could explain their more frequent use of psychotropic drugs, whereas men may use alcohol as a convenient alternative, as drinking is a prime expression of the traditional male sex role (Wilsnack et al., 2000).

Men and women differ in their experiences within similar social roles and in the types of stressors typically encountered. As gender influences the nature of role demands, both the relationship between social role and distress, and the conflicting demands arising from holding various roles will differ for each sex (Aneshensel and Pearlin, 1987; Gore and Mangione, 1983). Even though the number of dual-earner families has been increasing in contemporary societies, men are still more likely than women to be the primary providers of family income and women still bear more responsibility for family work. Therefore, it could be expected that economic changes and work-related stress would result in more pronounced reactions in men, while parenting and housework-related stress would affect women more.

The objective of this study is to examine the relationship of perceived job insecurity with the use of drugs, and to identify differences between working men and women. For this purpose, we have developed a theoretical model considering antecedents and mediators of this relationship. As men outnumber women as the main providers of household income, selecting only men and women who are primarily responsible for the household means of livelihood will ensure their similar vulnerability to the effects of job loss, thus avoiding biasing the results.

Theoretical model linking job insecurity with drug use

Figure 1 displays the proposed general model to be tested separately for two patterns of alcohol use and for prescription psychotropic drug use as outcomes.

Antecedents. We consider that the perception of job insecurity is most likely to be influenced by the type of contractual relationship. Additionally, we contend that both age and occupational class will be related to the type of contract held.

Mediators. This model includes poor mental health as a mediating factor in the relation between job insecurity and the use of drugs. While the relationship of poor mental health with the use of prescription psychotropic drugs seems straightforward, according to the tension-

reduction or self-medication model of drinking, some individuals will drink alcohol as a coping behaviour to deal with distress (Greeley and Oei, 1999).

Besides, we contend that the household structure will be associated with both individuals' mental health and the likelihood of drug use. Family roles are very important for wellbeing. Married individuals, especially men, tend to enjoy better health than people who are divorced or living alone (Gore and Mangione, 1983; Ross et al., 1990). Moreover, studies on life-course trajectories of drinking have determined that involvement in roles such as family formation and parenthood interferes with heavy drinking (Bogart et al., 2005; Dawson et al., 2006). In this respect, age may also define the type of household structure. On the other hand, household structure will determine house workload, and the actual amount of housework performed will depend on the individual's occupational class. House workload will be associated with both mental health and the use of drugs.

Direct associations are also contemplated between age and drug use, and between the type of contract and mental health (not mediated by job insecurity).

Methods

Source of information and sample

Data were drawn from the Catalan Health Survey (CHS) (Generalitat de Catalunya). Catalonia is a Spanish region with 7.5 million inhabitants located at the north-east of the Iberian Peninsula. Since 2010 information for the CHS is being collected continuously, structured in biannual waves. About 2,500 non-institutionalised individuals residing in Catalonia are interviewed in each wave. The sampling design is stratified by sex, age-group and municipality size, and non-proportional to over-represent the less populated territories. A multi-stage probability sample is applied considering municipalities and individuals. Weights are applied to restore the proportionality of the sample. The final selection of individuals for each wave is based on the latest population registry. For this study we used waves 1 to 9 (July 2010 to December 2014) and selected working individuals aged 16 to 64 years who were primary providers of household income, obtaining a combined sample of 5,315 individuals.

Measures

Antecedents

Age was considered as a continuous variable. The type of employment contractual relationship was collapsed into three categories: (1) permanent, including civil servant and open-ended

contract (reference category); (2) temporary, including those with no contract; and (3) self-employed and employer. Occupational class was determined using the Spanish adaptation of the British classification (Domingo-Salvany et al., 2000). This classification considers the job, the company's activity and whether the individual has responsibility over others. Occupation class was grouped into three categories: upper (including groups I and II -higher and lower managerial, administrative and professional occupations), taken as reference category; middle (including groups III and IVa -intermediate occupations, lower supervisory and technical occupations, and skilled manual occupations); and lower (groups IVb and V -semi and non-qualified manual occupations).

Stress exposure

The measure of job insecurity comes from the question asking about the perceived probability of losing one's job in the next six months. Answers were recoded into yes (including likely and very likely), and no (including unlikely and very unlikely).

Outcome (drug use)

Two measures of alcohol consumption were considered for the analysis. First, the weekly average of alcohol intake calculated in standard drinking units (SDU), considering the number of units and their frequency, and differentiating between weekday and weekend consumption (1 SDU=10 grams of pure ethanol). Individuals were classified according to their weekly average of alcohol intake as non-drinkers, moderate drinkers (men consuming up to 27 SDU and women consuming up to 16 SDU) (reference category), or heavy drinkers (those reporting weekly averages above these levels, ≥ 28 SDU for men and ≥ 17 SDU for women) (Rehm et al., 2007). Second, those reporting having had five or more drinks on a single drinking occasion at least once in the previous month were classified as binge drinkers. Not binge drinking was the reference category.

The use of hypnotics/sedatives was estimated from the question that registers the use of medication in the last two days. Individuals reporting use of either hypnotics or sedatives (regardless of a mediating prescription) were categorised as users (non-users as reference category).

Mediating factors

Poor mental health was assessed using the adapted short version of the General Health Questionnaire (GHQ-12) (Goldberg et al., 1970). Individuals scoring over 2 points in the GHQ-12 global score were considered at risk of poor mental health. Individuals were coded according to their household structure in four categories: single-person, couple with no

children, couple with children/single-parent family (reference category), and others (non-nuclear and non-classifiable households). Finally, a continuous measure of house workload was created from the total reported hours of housework per week.

Data Analysis

We used path analysis to assess the theoretical model for each of the three outcomes (two patterns of alcohol use and for prescription psychotropic drug use). Path analysis is a specific method of structural equation modelling which uses a system of simultaneous regression equations (logistic, multinomial logistic and linear) with observed variables and describes the directed dependencies among those variables. Model fit was tested using WLSMV estimator. The interaction with gender (reference category women) was tested in all the associations but it was only maintained when statistically significant. Alternative models (with other pathways for already included variables) were assessed to evaluate improvement of goodness of fit. It should be noted that in large samples, such as the current study, χ^2 is often significant regardless of fit, so we relied on approximate and relative fit indicators (RMSEA, CFI, TLI). Standard fit criteria were used, with Root Mean Square Error of Approximation (RMSEA) values of less than 0.06, Comparative Fit Index (CFI) and Tucker–Lewis Index (TLI) values over 0.90, all indicating good fit. Analyses were performed using SPSS v18 and Mplus v7.2.

Results

In the sample of 5,315 working individuals who were primary providers of family income, almost 70% were men. The mean age was 43.7 (SD 9.61) for men and 42.0 (SD 10.04) for women (Table 1). About 55% of men and women fell in the middle occupational class. The main differences between men and women in the type of contractual relationship were a larger proportion of permanent positions and temporary/no contract among women, and of self-employed/employers among men.

The predominant household typology for both men and women was that formed by a couple with children/single-parent family (62% for men and 56% for women), with larger proportions of women in single-person households. Mean hours of housework per week were 14 for women and 8.4 for men. The prevalence of poor mental health was 6.3% in men and 13.6% in women. Regarding substance use, the prevalence of heavy drinking and binge drinking in men almost doubled that of women (6.1% vs. 3.3% and 18% vs. 10%, respectively). Conversely, the use of hypnotics/sedatives among women more than doubled that of men (9.8% vs. 3.9%).

No significant differences were observed between men and women in the overall prevalence of job insecurity (17%) (Table 1). Prevalence of job insecurity was higher among the youngest, those in the lower occupational class, those with temporary/no contract, and those with poor mental health in both sexes. Higher prevalence was also observed among heavy and binge drinkers and among those using hypnotics/sedatives, the latter only significant among women.

Table 2 shows the results of the path analyses by substance use (heavy drinking, binge drinking and hypnotics/sedatives). The three models share the results for antecedents and mediators of the stress exposure. A summary of these results is also represented in Figure 2.

Type of contract. Age showed a significant negative association with temporary/no contract (OR=0.97), whereas it was positive with self-employed/employer (OR=1.02), compared to permanent contract. Conversely, middle and lower occupational classes were positively associated with temporary/no contract and negatively with self-employed/employer. The association with gender was negative with temporary/no contract, and positive among self-employed/employer, denoting a lower probability of men among those with temporary/no contract (OR=0.73) and higher among the self-employed/employer category (OR=1.64) compared to women. There were no significant interactions with gender.

Job insecurity. Compared to permanent contract, temporary/no contract had a significant positive association with the perception of job insecurity (OR=1.76). The association with gender was significant, indicating that men were more likely to perceive job insecurity than women when considering the type of contract (OR=1.41).

House workload. Overall women devoted about four and a half hours more to housework per week than men. Individuals from middle and particularly lower occupational classes devoted more hours to housework compared to those in the upper class, but a significant interaction between occupational class and gender indicated that this trend was almost entirely explained by the women as the time devoted to housework by men was similar across occupational classes. All household structure categories, but single person, had significant negative associations with house workload compared with couple with children/single-parent family, the reference category.

Household structure. Men were less likely than women to be represented in single person households, whereas the age of those in the category of others (non-nuclear/non-classifiable) tended to be significantly lower, in comparison with the reference category (couple with children/single-parent).

Mental health. Women were more likely than men to be at risk of poor mental health (OR=0.73). Besides, the type of contract showed a significant direct positive association with poor mental health only in the category of self-employed/employer, indicating a higher probability of poor mental health among those within this category (OR=1.09) compared to those with permanent contract. Job insecurity and house workload were also positively associated with poor mental health (OR=1.35 and OR=1.01, respectively).

Use of substances. Age had significant negative associations with binge drinking (OR=0.97) and positive with heavy drinking and hypnotics/sedatives (OR=1.01 and OR=1.04, respectively). Besides, men were more likely to engage in heavy (OR=1.26) and binge (OR=1.64) drinking and less likely to use hypnotics/sedatives (OR=0.72) compared to women. Poor mental health was positively associated with binge drinking (OR=1.23), and with the use of hypnotics/sedatives (OR=1.71), while for heavy drinking the association was negative but only marginally significant (OR=0.92). House workload showed direct negative associations with binge drinking only (OR=0.93). Finally, regarding household structure, those in the categories of single person household and couple with no children were more likely to engage in binge drinking (OR=1.19 and OR=1.09, respectively), while those in household category 'other' were less likely to engage in heavy drinking. There were no significant interactions with gender.

The goodness of fit of the models was acceptable, particularly for binge drinking and hypnotics/sedatives (Table 3). Among the alternative models assessed only one for heavy drinking improved the fit and revealed significant direct associations for occupational class and type of contract with heavy drinking. Individuals from middle and lower occupational classes were less likely to report heavy drinking (OR= 0.80, 95%CI: 0.68-0.96 and OR=0.65, 95%CI: 0.51-0.82, respectively) compared to upper class. Besides, both those with temporary/no contract and self-employed/employers were also less likely to engage in heavy drinking (OR= 0.86, 95%CI: 0.81-0.92 and OR=0.89, 95%CI: 0.84-0.95, respectively) compared to those with permanent contract. In this model mental health lost its significance.

Discussion

This theoretical model was conceived as a conceptualization of the relationship between job insecurity and substance use, considering antecedents of the exposure as well as mediators of the relationship, in order to explain gender differences in substance use, and the results obtained validate the overall coherence of the model, except for heavy drinking. Men and women experiencing job insecurity who are primary providers of household income are equally likely to be at risk of poor mental health. Moreover, poor mental health increases the

probability of binge drinking and hypnotic/sedative use also in both men and women. Regarding heavy drinking, occupational class and the type of contractual relationship with work would seem to be more relevant than mental health.

Theoretical formulations assume the centrality of the paid work role in men's life. Conversely, for women, involvement in the paid work role is considered secondary to that of family responsibilities. In this respect, and although only main family earners were included in this study, our results show some differences in men's and women's involvement with both paid work and housework which merit a comment.

On one hand, women accounted for only 30% of our sample, indicating the continuing predominance of men as main family earners. Also, the average income of households headed by women was lower than that of households headed by men (data not shown). Besides, women were more likely to hold a temporary/no contract job and less likely to be self-employed/employer than their male counterparts. On the other hand, women's house workload was significantly higher. However, it is important to emphasize that gender differences in house workload are strongly mediated by socioeconomic status and that women in the lower occupational class are the ones bearing most of the house workload. Other studies examining the relation between family demands and various ill-health indicators in working populations, have pointed at the moderating effect of the interaction between gender and social class (Artazcoz et al., 2004, 2001; Cleary and Mechanic, 1983). Income allows women to buy services, thereby reducing some of their household responsibilities and related distress.

Conversely, the association of job insecurity with poor mental health does not seem to vary by sex. These results contrast with those of other studies that report greater vulnerability of men's mental health to the effects of economy-related stressors compared to women's (Bartoll et al., 2014; Katikireddi et al., 2012; Lam et al., 2014; Paul and Moser, 2009; Sirviö et al., 2012). As a result of the economic downturn, the Spanish economy experienced a rapid contraction whereby unemployment rates rose steadily between 2007 and 2013. Although job loss has affected male-dominated industries such as construction to a greater extent, women's unemployment rate remains higher than men's. Remarkably, our results indicate a positive direct association between self-employed/employer and the risk of poor mental health, not mediated by job insecurity. This result, matching those of another study (Borrell et al., 2004), could reflect greater vulnerability of self-employed individuals and small employers included in

this category to the uncertainties of the current economy, largely dominated by big corporations.

House workload is also associated with poor mental health in both men and women. However, while the amount of house workload is related to the type of household (households with children are more likely to register higher workload), household structure does not present any direct association with the risk of poor mental health. Although there is ample evidence of the health benefits of marriage, especially for men (Gore and Mangione, 1983; Kilpi et al., 2015; Ross et al., 1990), evidence concerning the role of parent is less consistent (Barnett and Baruch, 1987). Employed parents presumably experience stress resulting from role overload and conflicting demands between paid work and family.

Regarding the use of substances, individuals qualifying for poor mental health are more likely to engage in binge drinking and use hypnotics/sedatives, irrespective of sex. Our results contrast with those of a study that found that the mediating effect of psychological distress on the process linking economic stress and drinking was stronger for men (Brown and Richman, 2012). However, our results point to the importance of occupational social class and the type of contractual relationship with work instead of mental health when the outcome is heavy drinking, a pattern of drinking traditionally embedded in Spanish society. We also identified different patterns in the associations with other mediators depending on the type of substance. House workload decreases the likelihood of engaging in binge drinking; correspondingly, those in households with no children are more likely to engage in binge drinking. Conversely, neither house workload nor household structure had any direct impact on the use of hypnotics and sedatives. The first issue to be considered is the different nature of the substances examined. Being a parent has been associated with lower alcohol consumption, as parental responsibilities would interfere with heavy drinking lifestyle (Bogart et al., 2005; Dawson et al., 2006). On the other hand, hypnotics and sedatives typically lack the recreational use of alcohol and, consequently, it is logical that neither house workload nor household structure have any direct impact on its use, i.e. not mediated by poor mental health.

According to our results, the interrelated functional stressors of occupational and family roles regarding substance use do not seem to work differently for men and women who are primary providers of household income. Building on the socialisation and role-constraint theories about gender-related influences of mental health, our results lend support to the notion that mental health of men and women would become more similar as their roles became more alike. However, the influence of gender in the nature of the role demands, both in paid work

as well as at home, would lead to differences in the social role/distress relationship for each sex (Gore and Mangione, 1983). The higher likelihood of women being at risk of poor mental health compared to men could be understood in relation to their also higher likelihood of using hypnotics/sedatives. Besides, a higher probability of heavy and binge drinking among men could be indicative of socialisation influences in drinking practices and in the response to stress.

One of the limitations of this work lies on the self-reported measure of perceived job insecurity, as an underlying negative reporting style may determine reports of both mental health and job insecurity. However, perceived job insecurity, when individuals perceive the continuance of their jobs to be under threat, is considered a more potent stressor than attributed job insecurity (based on objective indicators such as the level of layoffs or organisational changes) (De Witte and Näswall, 2003; Ferrie, 2001; Ferrie et al., 1995). Besides, there is the possibility of reporting bias affecting the validity of self-reported measures of alcohol use. Some studies claim that survey measures tend to underestimate the amount of alcohol consumed (Smith et al., 1990). The design of the questionnaire permitted an accurate calculation of the weekly average alcohol use, however, regarding binge drinking, the use of a single measure for the two sexes may have resulted in an underestimation of the prevalence of binge drinking among women.

An additional shortcoming may arise from the use of mental health as the single health-related mediating variable in the relationship between job insecurity and the use of substances. Other studies analysing somatic complaints as a mediator of the association between economic stressors and problematic drinking (Brown et al., 2014; Vijayasiri et al., 2012) found that although this mediation was stronger for men than for women, the association between stressors and somatic complaints was greater for women. To include somatic complaints or a measure of chronic conditions as mediators in our model might have helped to unravel gender differences in the manifestation of morbidity and in the use of substances as medication. Although this was discarded in order to avoid adding difficulty to an already complex model, it could certainly be the subject of further research in this field.

Furthermore, the cross-sectional nature of the data does not allow demonstrating the direction of causality between job insecurity, mental health and substance use, and a bi-directional effect, namely, alcohol use and/or poor mental health affecting exposure to job insecurity, cannot be ruled out. Besides, some categories concerning the type of contract and household structure had to be collapsed since the small number of individuals in some of them

and/or the unequal distribution among men and women was detrimental to the stability of the model.

The main strength of this study is the use of path analysis to test a theoretical model which helps to understand the mediating and moderating processes linking job insecurity and drug use. Besides, by selecting individuals based on their role as primary providers of household income, we have avoided the bias affecting other studies which do not take into account the dissimilar prevalence of social roles among men and women, making them more comparable. However, this feature would influence the representativeness of the sample and generalisation of the results.

According to our results, there are no gender differences in the effect of job insecurity in mental health and in the use of substances among main family earners, emphasising the need to take into account the different aspects influencing men's and women's exposure and susceptibility to mental health risks.

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Figure captions.

Figure 1. Theoretical model of the relationship between job insecurity and drug use with antecedents and mediators.

Figure 2. Summary results of the path analysis relating job insecurity with drug use.

Table 1. Descriptive characteristics of the sample by variables of interest.

	Men			Women		
	N	%	Job insecurity %	N	%	Job insecurity %
Total=5315	3709	68.5	17.6	1606	31.5	17.3
Mean age	43.7 (SD 9.61)			42.0 (SD 10.04)		
Age-groups			p<.001			p=.008
16-35	873	21.8	21.1	500	29.1	21.7
36-50	1771	51.1	18.0	708	48.3	15.4
51-64	1065	27.1	13.8	398	22.6	15.7
Occupational class			p<.001			p<.001
Lower	754	20.3	21.2	271	16.4	24.3
Middle	2111	55.4	18.0	896	55.9	18.3
Upper	832	24.3	13.2	428	27.7	11.5
Type of contract			p<.001			p<.001
Permanent	2387	66.3	14.0	1128	71.6	12.7
Temporary/no contract	377	10.0	50.4	242	15.2	44.8
Self-employed/employer	935	23.7	13.7	222	13.2	11.4
Household structure			p=.035			p=.081
Single-person	346	8.6	14.8	246	15.0	20.9
Couple with no children	897	23.2	16.4	337	20.1	17.7
Couple with children/single- parent	2236	61.7	17.7	886	56.3	15.6
Other (no nucleus/non classified)	230	6.5	23.5	137	8.7	21.8
House workload			p<.001			p=.180
Mean hours per week	3688	8.4 (SD 6.7)	9.6 (SD 8.4)	1596	13.9 (SD 7.2)	14.3 (SD 7.5)
Mental health			p<.001			p<.001
Poor	205	6.3	37.8	201	13.6	31.5
Good	3504	93.7	16.2	1405	86.4	15.1
Alcohol use			p=.001			p=.023
Non-drinker	754	18.2	21.0	562	31.8	18.6
Moderate drinker	2736	75.7	16.2	996	64.9	16.1
Heavy drinker	219	6.1	23.3	48	3.3	29.3
			p=.004			p=.001
Binge drinker	614	17.9	21.6	146	10.0	26.4
No binge drinker	3095	82.1	16.7	1460	90.0	16.3
Use of hypnotics/sedatives			p=.424			p=.009
Yes	141	3.9	20.0	157	9.8	24.6
No	3568	96.1	17.5	1449	90.2	17.3

N from raw data. % from weighted data.

Table 2. Path analysis estimate values. Odds Ratio (OR) and Parameter with 95% Confidence Interval (95%CI)

	OR (95%CI)			
Antecedents and mediators of stress exposure	Type of contract (ref. permanent)			
	Temporary and no contract			
	Gender (ref. women)	0,73 (0,57-0,94)*		
	Age	0,97 (0,97-0,97)***		
	Occupational class (ref. Upper class)			
	<i>Middle class</i>	1,36(1.10- 1.68)**		
	<i>Lower class</i>	2,92 (2,26-2,76)***		
	Self-employed and employer			
	Gender (ref. women)	1,64 (1.38-1.94)***		
	Age	1,02 (1.01- 1.02)***		
	Occupational class (ref. Upper class)			
	<i>Middle class</i>	0,61 (0.51-0.73)***		
	<i>Lower class</i>	0,30 (0.20-0.74)***		
	Job insecurity (ref. no)			
	Gender (ref. women)	1.41 (1.08-1.84)**		
	Type of contract (ref. Permanent)			
	<i>Temporary and no contract</i>	1.76 (1.63-1.89)***		
	<i>Self-employed and employer</i>	0.94 (0.87-1.01)		
	Parameter (95%CI)			
	House workload †			
	Gender (ref. women)	-4.41 (-5.34, -3.48)***		
	Occupational class (ref. Upper class)			
	<i>Middle class</i>	1.62 (0.76, 2.48)***		
	<i>Middle class*Gender</i>	-1.06 (-2.13, 0.01)		
	<i>Lower class</i>	3.97 (2.90, 5.04)***		
	<i>Lower class*Gender</i>	-3.74 (-5.06, -2.43)***		
	Household struct. (ref. Couple with children/single parent)			
	<i>Single person</i>	-0.13 (-0.52, 0.25)		
	<i>Couple with no children</i>	-0.66 (-0.93, -0.38)***		
	<i>Other (no nucleus/non classified)</i>	-0.71 (-1.00, -0.41)***		
	OR (95%CI)			
	Household struct. (ref. Couple with children/single parent)			
	Single person			
	<i>Gender</i>	0.70 (0.57-0.85)***		
	<i>Age</i>	1.00 (0.99-1.00)		
	Couple with no children			
	<i>Gender</i>	1.16 (0.98-1.38)		
	<i>Age</i>	1.00 (0.99-1.00)		
	Other (no nucleus/non classified)			
	<i>Gender</i>	0.84 (0.67-1.06)		
	<i>Age</i>	0.98 (0.97-0.99)***		
	Mental health (ref. good)			
	Gender (ref. women)	0.73 (0.55-0.96)*		
	Type of contract (ref. Permanent)			
	<i>Temporary and no contract</i>	0.98 (0.89-1.09)		
	<i>Self-employed and employer</i>	1.09 (1.01-1.18)*		
	Job insecurity (ref. no)	1.35 (1.23-1.48)***		
	House workload	1.01 (1.00-1.02)**		
	Household struc. (ref. Couple with children/single parent)			
	<i>Single person</i>	1.07 (0.96-1.16)		
	<i>Couple with no children</i>	0.95 (0.87-1.03)		
	<i>Other (no nucleus/non classified)</i>	1.05 (0.95-1.16)		
Substance use		Heavy drinking	Binge drinking	Hypnotics/sedatives
		OR (95%CI)	OR (95%CI)	OR (95%CI)
	Gender (ref. women)	1.26 (1.04-1.51)**	1.64 (1.30-2.07)***	0.72 (0.53-0.97)*
	Age	1.01 (1.01-1.01)***	0.97 (0.97-0.98)***	1.04 (1.03-1.04)***
	House workload	1.00 (0.99-1.00)	0.99 (0.98-1.00)**	1.00 (0.99-1.01)
	Mental health (ref. good)	0.93 (0.87-0.99)*	1.23 (1.13-1.33)***	1.71 (1.53-1.91)***
	Household struct. (ref. Couple with children/single parent)			
	<i>Single person</i>	1.01 (0.95-1.08)	1.19 (1.10-1.29)***	1.09 (0.97-1.22)
	<i>Couple with no children</i>	1.03 (0.98-1.09)	1.09 (1.02-1.17)**	0.98 (0.89-1.09)
	<i>Other (no nucleus/non classified)</i>	0.86 (0.80-0.93)***	1.09 (1.00-1.19)	1.07 (0.95-1.21)

The three models share the results for antecedents and mediators of the stress exposure

*p<0.05; **p<0.01; ***p<0.001

† Continuous dependent variable, Odds Ratio not available.

Table 3. Goodness of fit of the models.

	Heavy drinking	Heavy drinking (alternative model)	Binge drinking	Hypnotics/sedatives
RMSEA[†] (<0.06)	0.024	0.021	0.021	0.021
CFI[†] (> 0.90)	0.843	0.897	0.901	0.899
TLI[†] (>0.90)	0.710	0.780	0.822	0.818

[†] RMSEA, Root Mean Square Error of Approximation; CFI, Comparative Fit Index; TLI, Tucker–Lewis Index.

Figure 1.

Figure 2.

Gender reference category, women.