

Job insecurity, financial difficulties and mental health in Europe

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Abstract

Background: The recession has increased job insecurity in the European Union which may result in higher levels of psychological distress, burnout and anxiety.

Aims: To investigate the association of job insecurity and financial difficulties with mental health in 27 member states of the European Union (EU) and to explore the moderating effect of having financial difficulties on the relationship between job insecurity and mental health.

Methods: The sample consisted of employed people from 27 European countries where the Eurobarometer survey (73.2 wave, 2010) was administered by the European Commission. Mental wellbeing and psychological distress were measured using the Vitality and Mental Health Index (MHI-5) subscales from the Short Form 36-item health survey (SF-36v2). Linear regression including an interaction term was used to test the underlying factors in this study.

Results: Among the 12,594 respondents, experiencing job insecurity was associated with lower Vitality ($\beta = -3.82$, 95% CI: -5.29 to -2.36) and MHI-5 ($\beta = -3.48$, 95% CI: -4.91 to -2.04). Similarly, having financial difficulties was significantly correlated with lower vitality ($\beta = -8.65$, 95% CI: -12.07 to -5.24) and MHI-5 ($\beta = -11.51$, 95% CI: -15.08 to -7.94). However having financial difficulties did not moderate the relationship between job insecurity and both mental health scales.

Conclusions: This study highlights the negative effect of job insecurity and financial difficulties on mental health in the EU. Support to employees facing job security issues should be a priority regardless of the financial circumstances.

Key words: mental health, Europe, job insecurity, vitality, Mental Health Index-5

Introduction

The recession has led many European Union (EU) citizens to experience increased threat to their employment [1]. Job insecurity, the “perceived powerlessness to maintain the desired continuity in a threatened job situation” is a highly subjective phenomenon [2] which results in higher levels of psychological distress, burnout and anxiety [3, 4]. Past research has also found strong associations between the experience of financial difficulties and worse mental health [3]. Some studies indicate that financial insecurity increases the negative effect of job insecurity on mental health [2, 5], but others do not [6].

Our study aimed to explore the effect of job insecurity and financial difficulties in 27 EU member states on both a positive and negative dimension of mental health. Moreover, we aimed to test the interaction between job insecurity and financial difficulties in order to gain a more in-depth understanding of the moderating effect of financial difficulties on mental health.

Methods

We used publicly available data from wave 73.2 of the Eurobarometer survey administered in 2010 by the European commission in 27 EU member states [7]. Multi-stage random probability sampling was used to recruit EU nationals aged 15 and over. We used two mental health subscales from the Short Form 36-item health survey (SF-36v2); Vitality, an indicator of positive mental wellbeing, and Mental Health Index (MHI-5) which measures psychological distress. The SF-36v2 scoring manual was used to convert raw scores to a 0-100 scale with 0 representing poor mental health and 100 representing optimum mental health. Past studies have found associations between the two scales and depression or hospitalisation and they provide an indication of the general health status, although for the diagnosis of specific conditions validated psychological instruments should

be considered. Respondents were also asked whether they agreed or disagreed with the following statement, “Your job security is under threat” and if they had difficulties paying bills ‘most of the time’, ‘from time to time’ or ‘never/almost never’. Data were also collected on respondents’ job satisfaction, age, gender, marital status, educational level and self-reported social status. The analysis was adjusted for gross domestic product (GDP) per capita in purchasing power standards (PPS) and unemployment rate (%) at a national level, collected from the Eurostat database [8]. No ethical approval was required. Further details regarding the methodology are given in Supplementary Table 1. We used a linear regression model to assess the association of job insecurity and financial difficulties with both dimensions of mental health, adjusted for age, gender, education, social status, marital status, job satisfaction, unemployment rate, and GDP as covariates both at an EU-wide level and in each country. An interaction term was included to test the potential moderating effect of financial difficulties on the association between job insecurity and mental health.

Results

After restricting the analysis to employed individuals the sample consisted of 12,594 respondents (Table 1). The mean Vitality score was 62.1 (95% CI: 61.6–62.5) and the mean MHI-5 score was 70.4 (95% CI: 69.9–70.8). Job insecurity was associated with lower Vitality ($\beta = -3.82$, 95% CI: -5.29 to -2.36) and lower MHI-5 ($\beta = -3.48$, 95% CI: -4.91 to -2.04). Similarly, those with financial difficulties most of the time had lower Vitality ($\beta = -8.65$, 95% CI: -12.07 to -5.24) and MHI-5 ($\beta = -11.51$, 95% CI: -15.08 to -7.94) compared to individuals who never had financial difficulties. The interaction between financial difficulties and job insecurity did not have a statistically significant effect on either Vitality or MHI-5 (Table 2). Country-specific analyses did not reveal significant

variation in the relationship between financial difficulties, job insecurity and mental health between countries.

Discussion

Our analysis found that job insecurity and financial difficulties were significantly associated not only with lower MHI-5 scores, consistent with findings from a previous analysis of the same dataset [3], but also with Vitality scores. The positive and negative dimensions of mental health are complementary and distinct rather than separate ends of one spectrum [9] and our findings illustrate that these factors affect both dimensions. Our findings also suggest that job insecurity has the same effect on mental health regardless of financial difficulties. This is in agreement with Richter et al. (2014) but not with the meta-analysis of Greenhalgh and Rosenblatt (1984) which concluded that individuals with financial problems are more dependent on their jobs, and are therefore “likely to react more strongly to perceived threat” and have worse mental health. This inconsistency may be partly explained by the focus of Greenhalgh and Rosenblatt on studies mostly from the United States. The robust social protection systems in many European countries may shield individuals from the adverse effects of job loss, particularly financial strain. Therefore the higher social spending in Europe, as opposed to the weaker and less generous social welfare programmes in the United States, could mitigate the moderating effect of financial difficulties.

Even though MHI-5 and Vitality scores have not been directly associated with specific clinical conditions, MHI-5 is most sensitive to clinical manifestations of depression and anxiety [10]. The results of our study indicate that health professionals should be aware that people faced with job insecurity may be vulnerable to mental health problems even if they don't face financial

difficulties; therefore support services could be valuable for all workers worried about their job security. The cross-sectional nature of the data does not permit the inference of casual relationships and the inherent limitations of self-reporting could affect the reliability of the findings. Poor mental health could also increase feelings of job insecurity, so the detected association may be bi-directional. Finally, since the data used were collected in 2010, at a time when the after-effects of the financial crisis were still being felt, a natural progression for future research would be to retest the examined relationships during different economic conditions.

In conclusion, job insecurity appears to affect multiple dimensions of mental health. Health professionals should consider it as an important determinant of mental health and address it, even in people who might be considered at low risk because they don't have financial problems.

Key points:

- In employed people in the European Union, job insecurity and financial difficulties were associated with higher psychological distress.
- Job insecurity and financial difficulties were also independently associated with poorer mental wellbeing.
- Having financial difficulties did not moderate the relationship between job insecurity and both mental health scales.

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References

1. Van Gyes G, Szekér L. *Impact of the crisis on working conditions*.
<http://www.eurofound.europa.eu/observatories/eurwork/comparative-information/impact-of-the-crisis-on-working-conditions-in-europe> Accessed [08/10/2015].
2. Greenhalgh L, Rosenblatt Z. Job Insecurity: Toward Conceptual Clarity. *Acad Manag Rev* 1984;9:438-448.
3. Buffel V, Dereuddre R, Bracke P. Medicalization of the Uncertainty? An Empirical Study of the Relationships between Unemployment or Job Insecurity, Professional Care Seeking, and the Consumption of Antidepressants. *Eur Sociol Rev* 2015.
4. Kim TJ, von dem Knesebeck O. Is an insecure job better for health than having no job at all? A systematic review of studies investigating the health- related risks of both job insecurity and unemployment. *BMC Public Health* 2015;15:985.
5. Clark L. Moderators of the effects of perceived job insecurity: A comparison of temporary and permanent employees [Dissertation]. Queensland: Queensland Institute of Technology, 2005.
6. Richter A, Näswall K, Bernhard-Oettel C, Sverke M. Job insecurity and well-being: The moderating role of job dependence. *Eur J Work and Organ Psychol* 2014;23:816-829.
7. European Commission (2010) Eurobarometer 73.2 (Feb-Mar 2010). TNS Opinion & Social, Brussels [Producer]. GESIS Data Archive, Cologne. ZA5232 data file version 3.0.0, doi:10.4232/1.11429.

8. EuroStat. *Unemployment Statistics*. http://ec.europa.eu/eurostat/statistics-explained/index.php/Unemployment_statistics Accessed [10/19/2015].
9. Sanne MAL, Gul P, Beáta EK, Kroeze R, Anna MKM, Irena Stojadinović, Dorota LS, Vigani A. Conceptualizations of Mental Health Across Europe: Comparing Psychology with Science and Engineering Students. *J Eur Psychol Students* 2014;5:3.
10. Romppel M, Braehler E, Roth M, Glaesmer H. What is the General Health Questionnaire-12 assessing? Dimensionality and psychometric properties of the General Health Questionnaire-12 in a large scale German population sample. *Compr Psychiatry* 2013;54:406-13.

Table 1. Sociodemographic characteristics of the sample of 12,594 employed individuals in the European Union.

		N	Weighted %
Gender	Male	6,465	55
	Female	6,129	44
Age (years)	15–24	809	8
	25–34	2,896	24
	35–44	3,568	30
	45–54	3,296	26
	55–64	1,817	11
	65+	208	1
Marital Status	Married/Cohabitation	8,976	72
	Single	3,511	27
	Other	97	1
Education Level	No or Low	1,215	12
	Medium	4,651	39
	High	6,540	49
Social Status	Low	1,973	16
	Medium	8,520	72
	High	1,763	13
Job Insecurity	Secure	8,400	74
	Insecure	3,411	26
Job Dissatisfaction	Not Dissatisfied	8,238	67
	Somewhat Dissatisfied	2,637	23
	Very Dissatisfied	1,016	10
Financial Difficulties	Never	7,938	67
	Time to Time	3,661	28
	Most of the Time	808	5

Table 2. Linear regression model testing the effect of job insecurity and financial difficulties on the vitality and MHI-5 of employed individuals in the EU (2010)

Independent Variables	Vitality		MHI-5	
	β - Coefficient	P-value	β - Coefficient	P-value
Job Insecurity				
Secure (Referent)				
Insecure	-3.82 (-5.29 to -2.36)	<0.001	-3.48 (-4.91 to -2.04)	<0.001
Financial Difficulties				
Never (Referent)				
Time to Time	-3.01 (-4.24 to -1.78)	<0.001	-5.18 (-6.43 to -3.94)	<0.001
Most of the Time	-8.65 (-12.07 to -5.24)	<0.001	-11.51 (-15.08 to -7.94)	<0.001
Job Insecurity x Financial Difficulties				
Insecure x Never (Referent)				
Insecure x Time to Time	-0.03 (-2.20 to 2.26)	0.977	-0.25 (-2.48 to 1.98)	NS
Insecure x Most of the Time	0.95 (-3.61 to 5.50)	0.683	-1.07 (-5.63 to 3.49)	NS

*Adjusted for age (years), gender, marital status, education level, social status, job satisfaction, GDP (per capita in PPS) and unemployment rate (%).

Supplementary table 1. Additional details on sampling, measures and analytical methodology.

<p>Sampling</p>	<ul style="list-style-type: none"> • Publicly available Eurobarometer 73.2 wave survey data administered in 2010 by the European commission in all EU member states. • Eurobarometer is a series of public opinion surveys which address topical issues related to the EU. • Wave 73.2 collected self-reported information on mental health, domestic violence, and humanitarian aid. • Multi-stage random probability sampling was used to collect the sample. Primary sampling units (PSU) were chosen from administrative regional units in each country. PSU selection was systematically conducted with probabilities being proportional to the size of the population and stratified by the extent of urbanization. Next, clusters of addresses were randomly selected from each PSU. Further addresses were methodically chosen using a random route method selecting every nth address from a primary location. Only one respondent was selected from each household using the closest birthday rule. • The total sample consisted 27,304 respondents from 27 member states. The current analysis was conducted among employed respondents only (n=12,594)
<p>Measures</p>	<ul style="list-style-type: none"> • Job satisfaction was measured by asking respondents whether they agree or disagree with the following statements: “Your current job adequately reflects your education and training” and “At work you receive the respect and recognition that your efforts and achievements deserve.” • Respondents were classified into three categories based on their marital status: single; married and cohabiting couples; other. • Respondents were classified into the following age groups: 15-24; 25-34; 35-44; 45-54; 55-64; and 65+ years old. • Educational level was assessed based on the age at which full-time education was completed (low, i.e. up to 14 years; medium, i.e. 15-18 years; and high, i.e. 19+ years). • GDP per capita (in PPS) and unemployment rate (%) at a country-level were collected from the Eurostat database. GDP per capita in PPS sets the EU average GDP per capita equal to 100, where PPS is a common currency for all countries to remove the differences between price levels and increase the accuracy of conducting cross-country comparisons of GDP (or economic activity).