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From the boom to the crisis: changes in employment conditions of immigrants in Spain and their effects on mental health

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Background: Migrant workers have been one of the groups most affected by the economic crisis. This study evaluates the influence of changes in employment conditions on the incidence of poor mental health of immigrant workers in Spain, after a period of 3 years, in context of economic crisis. **Methods**: Follow-up survey was conducted at two time points, 2008 and 2011, with a reference population of 318 workers from Colombia, Ecuador, Morocco and Romania residing in Spain. Individuals from this population who reported good mental health in the 2008 survey ($n = 214$) were interviewed again in 2011 to evaluate their mental health status and the effects of their different employment situations since 2008 by calculating crude and adjusted odds ratios (aORs) for sociodemographic and employment characteristics. **Findings**: There was an increased risk of poor mental health in workers who lost their jobs (aOR = 3.62, 95%CI: 1.64–7.96), whose number of working hours increased (aOR = 2.35, 95%CI: 1.02–5.44), whose monthly income decreased (aOR = 2.75, 95%CI: 1.08–7.00) or who remained within the low-income bracket. This was also the case for people whose legal status (permission for working and residing in Spain) was temporary or permanent compared with those with Spanish nationality (aOR = 3.32, 95%CI: 1.15–9.58) or illegal (aOR = 17.34, 95%CI: 1.96–153.23). In contrast, a decreased risk was observed among those who attained their registration under Spanish Social Security system (aOR = 0.10, 95%CI: 0.02–0.48). **Conclusion**: There was an increase in poor mental health among immigrant workers who experienced deterioration in their employment conditions, probably influenced by the economic crisis.

Introduction

Economic crises create serious political, social and employment problems that affect people's health. Studies of previous economic crises have shown that the short-term effects on health occur through impoverishment (income effect) and unemployment, and are most pronounced when economic changes occur rapidly and in scenarios of low social cohesion and protection.[1,2] The worst affected are those who belong to the most vulnerable groups: children, young people, single parents, unemployed, ethnic minorities, elderly and migrants.[3] There is widespread agreement that involuntary job loss increases the risk of physical and mental disorders.[4,5] Several studies have indicated that in the short-term, unemployment and decrease in income have negative consequences on mental health and increase the suicide risk[6]; additionally changes in behaviours, such as dietary patterns, lead to an increase in the prevalence of obesity.[7] Furthermore, there is some evidence that unemployment also increases health services utilization.[8] In the long-term, increases have been observed in overall mortality.[9] However, other studies have reported an improvement in physical health.[10]

Research assessing the health effects of the present crisis is still in the early stages and is mostly based on the general population. Some findings have indicated an increase in symptoms of severe depression and generalized anxiety disorder among people who have experienced foreclosure.[11] Furthermore, an increase has also been detected in the number of suicides[12,13] and suicide attempts compared with previous years, together with a higher proportion of suicidal ideation and suicide attempts among people under financial pressure.[14] There have also been studies of an increase in the prevalence of poor self-perceived and mental health.[12,15]

In the case of Spain, demographic changes are also important to consider. Within Europe, Spain has become a primary destination for migrants, the majority of whom have come from low-income countries, attracted by the expanding economy.[16] However, by 2009, Spain's period of growth ended as a result of global financial crisis. The labour market was severely affected and suffered job losses, especially in construction and services, the sectors most vulnerable to the recession and those that employed, with some differences by gender, most of the immigrant population. This caused the unemployment rate to rise, affecting more immigrants than natives. Thus, while the overall unemployment rate in Spain in the fourth quarter of 2012 was 26%, the corresponding rate for the immigrant population was 37%. Similarly, the wage gap between immigrants and natives has been accentuated [the average wage of the Spanish barely increased (0.8%), while that of foreigners decreased strongly (−0.6%)].[17]

To the best of our knowledge, no studies to date have assessed how the current crisis affects employment conditions and their health effects on the immigrant population, although previous studies have reported the effects of poor employment and working conditions on immigrant health in times of economic boom.[18,19]

Thus, the objective of the study was to assess the effect of changes in employment conditions on the incidence of poor mental health of

immigrant workers in Spain after a period of 3 years (2008–11), in the context of economic crisis.

Methods

This study formed a part of the ITSAL (Immigration, Labour and Health) Project that aims to study the employment and working conditions of immigrant workers, and their relationship to health. To this end, several sub-studies were conducted, including two surveys. The first one (face-to-face interview) was conducted in 2008 (henceforth referred to as ITSAL I) on a convenience sample ($n = 2434$) of migrant workers from Colombia, Ecuador, Morocco and Romania, the most highly represented nationalities in Spain.[20] The second one (phone interview) was conducted on the same base population (henceforth referred to as ITSAL II) in 2011, with the aim of assessing their employment, working and health conditions over the period.[21]

Of the 2434 workers surveyed in 2008, a total of 1129 (46.4%) left a telephone number. Contact was made with 363 of the participants in ITSAL I; of these, 318 completed the survey, 23 refused to participate and 22 did not complete it. Of the remaining 766 workers, 307 did not answer the phone, in 152 cases the number did not exist, in 261 cases the telephone number did not belong to the respondent and in 46 cases phone numbers were busy or the connection was lost. The response rate was 29.5% and the cooperation rate 91.7%. The highest response rates were obtained from persons from Ecuador (35.0%), women (34.1%), those aged >45 years (39.7%) and persons who worked in industry (39.5%); the lowest response rates were from Moroccans (25.0%), persons aged <25 years (18.4%) and those who worked in agriculture (19.0%).

Data were collected using *ad hoc* questionnaires available at http://www.upf.edu/cisal/investigacion/itsal.html.

Thus, for this analysis, we have considered the follow-up data for the survey at two time points, 2008 (ITSAL I) and 2011 (ITSAL II), on the same base population (318 immigrant workers). To assess the effect of changes in employment conditions on the incidence of poor mental health, we selected only those individuals who reported good mental health in ITSAL I ($n = 214$).

The outcome was mental health status in 2011. This was measured using the Spanish-language validated version of the 12-item General Health Questionnaire (GHQ-12) with four response options.[22,23] The GHQ-12 is a commonly used instrument in occupational health research and is a well-validated measure to detect current non-psychotic disorders focusing on breaks in normal functioning rather than lifelong traits; thus, it assesses personality disorders or patterns of adjustment associated with distress.[22–24] This variable was dichotomized into 'good mental health' and 'poor mental health'. For each item, a score of 0 (for responses 1 and 2, less symptomatic) or 1 (for answers 3 and 4, more symptomatic) was assigned, and the 12 resulting scores were added together. A score below 3 indicated good mental health, and a score of ≥3 indicated poor mental health.[22–24]

The main explanatory variables were the employment conditions in 2008 and 2011. We analysed the interviewees' legal status (in terms of possession and type of work permit, defined as long-term permit, temporary permit, no permit and Spanish nationality), employment status at the time of the interview (employed, unemployed; in 2011, unemployed were differentiated between those with benefits or without benefits), Spanish Social Security system registration (yes or no), employment contract (open-ended contract, temporary contract, no contract and self-employed), working hours per week (0–20, 21–40 and >40 h), number of days off in the last week worked (0, 1, 2 and >2 days) and monthly job net income in euros (0–900, 901–1200 and >1200 euros). For those unemployed in 2011, the former five variables were referred to their last employment. According to the information on all these employment conditions obtained from the two surveys, we created new variables identifying the employment paths of the participants for each of the main explanatory variables (table 1).

The secondary explanatory variables were sex, age at the first interview (<25, 25–34, 35–44 and ≥45 years), country of origin, occupational qualification in Spain (manual and non-manual) and educational level (no formal education or primary, secondary and university education).

First, we conducted a descriptive analysis of the variables analysed. Then we calculated the prevalence of poor mental health in 2008 and the incidence of poor mental health in 2011 (and their 95% confidence intervals, 95%CI) according to sociodemographic variables and the employment paths defined in table 1. Subsequently, we analysed the association between poor mental health in 2011 and employment paths by calculating crude and adjusted odds ratios (aOR) and 95%CI, using separate logistic regression models for each employment path. The adjustment variables were sex, age, country of origin, occupation, educational level and employment status in 2011. Data were processed and analysed using the statistical software packages SPSS19 and Stata11.0.

This study was approved by the Parc de Salut Mar Clinical Research Ethical Committee of Barcelona. Confidentiality was guaranteed throughout the process, and the respondents gave their consent to participate in the study in accordance with the provisions of Spanish Organic Law 15/1999 on Data Protection. All data were rendered anonymous.

Results

The subgroups of younger workers (aged <25 years: 50%, and between 25 and 34 years: 40%), Moroccans (55%), non-manual workers (40%) and unemployed (with unemployment benefit: 43%, without unemployment benefit: 53%) with good mental health in 2008 were those reporting the highest incidence of poor mental health in 2011 (table 2).

With regard to employment paths (table 3), we found a higher incidence of poor mental health among those with illegal status at both time points (75%) and among those who did not report having an employment contract (44%) or who were not registered in the Spanish Social Security system (50%) in either ITSAL I or ITSAL II. Poorer mental health was also reported by those whose situation changed from employment to unemployment (57%), those whose number of working hours per week increased (49%), those who reported having 1 or no day off per week in both surveys (57%) and among those whose monthly income decreased or who were located in the low monthly income bracket in both surveys (40 and 38%, respectively).

Table 4 presents the crude and adjusted associations between poor mental health in relation to employment paths, showing a statistically significant increased risk among those whose legal status remained temporary or permanent compared with those with Spanish nationality (aOR = 3.32, 95%CI: 1.15–9.58) or illegal in both ITSAL I and II (aOR = 17.34, 95%CI: 1.96–153.23). We also detected a statistically significant association with poor mental health among those whose situation changed from employment to unemployment (aOR = 3.62, 95%CI: 1.64–7.96), whose number of working hours per week increased (aOR = 2.35, 95%CI: 1.02–5.44) and those whose monthly income decreased (aOR = 2.75, 95%CI: 1.08–7.00). We also observed a positive association at the 10% level between poor mental health and employment with a lack of contract (aOR = 2.24, 95%CI: 0.76–6.67), among those with only one or no day off per week (aOR = 2.80, 95% CI: 0.91–8.61) in both surveys and who reported receiving a low income in ITSAL I and II (aOR = 2.73, 95%CI: 0.98–7.62).

In contrast, and considering employment paths in relation to Social Security registration, we observed a statistically significant

Table 1 Theoretical employment paths (main explanatory variables) derived from the combination of all the different situations related to employment in 2008 and 2011

Employment paths	Status in 2008	Status in 2011
Legal status		
Acquisition of Spanish nationality	Temporary/long-term permit	Spanish nationality
	No permit	Spanish nationality
Continuous legal status	Temporary/long-term permit	Temporary/long-term permit
Illegal to legal status	No permit	Temporary /long-term permit
Continuous illegal status	No permit	No permit
Employment contract		
Continuous contract	Open-ended/temporary contract	Open-ended/temporary contract
Change to a contract	No contract/self-employment	Open-ended/temporary contract
Change to no contract	Open-ended/temporary contract	No contract/self-employment
Continuous lack of contract	No contract/self-employment	No contract/self-employment
Social Security registration		
Continuous insurance	Yes	Yes
No insurance to insurance	No	Yes
Insurance to no insurance	Yes	No
Continuous lack of insurance	No	No
Employment status		
Continuous employment	Yes	Yes
Unemployment to employment	No	Yes
Employment to unemployment	Yes	No
Continuous unemployment	No	No
Working weekly hours		
Continuity in hours	0–20	0–20
	21–40	21–40
	>40	>40
Decreased hours	21–40	0–20
	>40	0–20/21–40
Increased hours	0–20	21–40/>40
	21–40	>40
Days off		
Continuity in 2 or >2 days	2	2
	>2	>2
Increased days	0	1/2/>2
	1	2/>2
	2	>2
Decreased days	2	1
	>2	1/2
Continuity in <2 days	0	0
	1	1
Monthly job net income (in euros)		
Continuous high/average income	>1200	>1200
	901–1200	901–1200
Increased income	0–900	901–1200/>1200
	901–1200	>1200
Decreased income	901–1200	0–900
	>1200	0–900/901–1200
Continuous low income	0–900	0–900

decrease in risk among those whose situation changed from no insurance to insurance (aOR = 0.10, 95%CI: 0.02–0.48).

Discussion

The main findings indicated an increased risk of poor mental health between 2008 and 2011 among those whose employment conditions deteriorated, changing from employment to unemployment, experiencing an increase in the number of working hours or seeing a reduction in their monthly income. We also observed an increased risk of poor mental health among people whose legal status was temporary or illegal and among those who reported low incomes at both time points. In contrast, we observed a decreased risk among those who reported being registered in the Social Security system in 2011 and not having this coverage in 2008. These results remained unchanged after adjusting for sociodemographic and employment variables.

The relationship between unemployment and mental health has been well documented, identifying poorer mental health among the unemployed.[4,6] Furthermore, it has been found that job loss is associated with negative changes in mental health, whereas finding a new job after a period of unemployment is associated with an improvement.[25] Our findings indicated the same trend, although the association was stronger for the change from employment to unemployment. Some of the aspects that might explain the relationship between unemployment and health may be related to economic deprivation or lack of control over the situation, but also to the latent role or function of work in regards to structuring time, providing opportunities for social contact and contributing to status and personal identity.[26,27]

The effects of working hours have also been studied. Two reviews reported an increase in poor mental health with increased working hours and long working days.[28,29] Our results also showed a positive association between poor mental health and the change in number of working hours, especially when these increased. Some factors that might explain this relationship are the possible changes in routines that imply less time for rest, leisure and social relationships, less time for domestic responsibilities and perhaps a greater difficulty

Table 2 Prevalence of poor mental health at baseline (2008) and incidence of poor mental health in 2011 (ITSAL II) among migrant workers in Spain reporting good mental health in 2008 (ITSAL I) according to baseline sociodemographic characteristics

Variables	*n*	Prevalence	(95% CI)	*P*	*n*	Incidence	(95% CI)	*P*
Sex								
Male	157	23.57	(17.17–30.99)	0.020	115	33.04	(24.56–42.43)	0.773
Female	161	36.02	(28.62–43.95)		99	35.35	(26.01–45.60)	
Age (in years)								
<25	36	25.00	(12.12–42.20)	0.426	26	50.00	(29.93–70.07)	0.032
25–34	134	27.61	(20.24–36.00)		92	40.22	(30.12–50.96)	
35–44	97	29.90	(21.02–40.04)		67	23.88	(14.31–35.86)	
45	51	39.22	(25.84–53.89)		29	24.14	(10.30–43.54)	
Country origin								
Colombia	75	40.00	(28.85–51.96)	0.060	44	22.73	(11.47–37.84)	0.011
Ecuador	129	31.01	(23.16–39.75)		86	32.56	(22.84–43.52)	
Morocco	62	24.19	(14.22–36.74)		44	54.55	(38.85–69.61)	
Romania	52	19.23	(9.63–32.53)		40	27.50	(14.60–43.89)	
Educational level								
No formal/ primary education	83	31.33	(21.59–42.44)	0.249	56	35.71	(23.36–49.64)	0.653
Secondary education	177	32.20	(25.39–39.63)		114	31.58	(23.19–40.95)	
University education	58	20.69	(11.17–33.35)		44	38.64	(24.36–54.50)	
Occupation								
Non-manual	108	34.26	(25.40–44.01)	0.245	70	40.00	(28.47–52.41)	0.221
Manual	210	27.62	(21.69–34.19)		144	31.25	(23.79–39.50)	
Employment status								
Employed	243	27.98	(22.43–34.08)	0.196	151	27.15	(20.24–34.98)	0.003
Unemployed	75	36.00	(25.23–47.91)					
With benefits					14	42.86	(17.66–71.14)	
Without benefits					49	53.06	(38.27–67.47)	
Total	318	29.87	(24.89–35.23)	–	214	34.11	(27.78–40.88)	–

Incidence and prevalence of poor mental health per 100 individuals, 95% CI: 95% confidence interval.

in balancing work–family commitments. Besides, it would be necessary to evaluate whether this increase could be related to a possible intensification of the workload, increasing fatigue. Some aspects that might interact are the type of timetable and shift work, hours, social class, marital status and/or gender. In fact, in one follow-up study, it was reported that long working hours and an increase in hours worked constitute a risk factor for developing symptoms of anxiety and depression, especially in women.[30]

In our data, poor mental health was also clearly associated with a decrease in income or consistently earning a low income. This effect may be due to the difficulties encountered in meeting costs and material needs, either because of remaining in the low-income bracket or having experienced a decrease compared with the previous situation, which would require adjusting consumption, especially among migrants who often support dependent persons in the country of origin.[31] Another longitudinal study found an increased risk of depression among those who earned a lower monthly income compared with those who earned the highest amount, a circumstance also indicated by our results.[32] Nevertheless, to obtain a clearer picture of the effect on mental health of monthly income earned, other factors should be taken into account such as net household income, debt-free assets, the number of children/economically dependent people in the household and having more than one job.[32]

Few studies have addressed the effects of social insurance protections on health, in the case of unemployment status. A cross-sectional study carried out in Brazil showed a greater likelihood of common mental disorders among workers in the informal economy compared with those in the formal sector.[33] Complementarily, in our study, we observed a decreased risk of poor mental health among those whose situation changed from no Social Security registration to insurance, whereas risk increased for the paths of insurance to no insurance and continuous lack of insurance. However, it is important to note that in the Brazilian study, informal workers were defined as those who were not registered with the Social Security system as well as those who were self-employed (but self-employed in Spain had Social Security coverage as well). These findings suggest that the improvement in status compared with the starting point (not being registered with the Social Security system) could lead to increased knowledge and control over employment and working conditions and a reduction in insecurity, given the greater coverage and social protection (sickness absence, unemployment, retirement, among others), which might cushion or minimize the risk of poor mental health. Conversely, perceived or attributed job insecurity has been associated with an increased risk of poor mental health,[34] even after this circumstance has changed.[35]

Similarly, the increased risk of poor mental health among people who reported temporary legal status or continued illegal status could be due to increased insecurity, precariousness and vulnerability associated with these circumstances. This is due not only to the fears and concerns that such a situation can generate, but also to the subjective perception of having a distinct disadvantaged status with respect to others. These results are partially consistent with those of a study that indicated worse self-perceived health among migrants without valid documents or holding temporary residence permits.[36] It is interesting to note that in this study, the health status of migrants was worse not only compared with natives, but also compared with migrants who had acquired nationality of the host country. Previous studies have also found an association between illegal status and poor mental health, although only among men who had been resident in the host country for <3 years.[19]

Our research has some limitations. There may be selection bias in the participants in the first survey. Participation in the survey required a sufficient command of Spanish, thus excluding those without fluency.[20] Additionally, some of the participants in the first survey were not located for the second survey. Non-participants in the second survey may have been more affected by adverse economic and employment situations, or may have had more difficulties regarding legal status and residence compared with those who were contacted again. Finally, there is also a possibility of a reverse causation effect owing to the inability to establish an inter-survey temporal sequence regarding employment paths and the effect on health, as the health measures analysed were obtained at the

Table 3 Incidence of poor mental health according to employment paths in a sample of immigrant workers in Spain, 2008 (ITSAL I) and 2011 (ITSAL II)

Employment paths	*n*	Incidence	(95% CI)	*P*
Legal status				
Acquisition of Spanish nationality	34	17.65	(6.76–34.53)	0.014
Continuous legal status	151	36.42	(28.75–44.64)	
Illegal to legal status	21	28.57	(11.28–52.18)	
Continuous illegal status	8	75.00	(34.91–96.81)	
Employment contract[a]				
Continuous contract	141	29.79	(22.38–38.06)	0.268
Change to contract	23	43.48	(23.19–65.51)	
Change to no contract	25	41.67	(22.11–63.36)	
Continuous lack of contract	24	44.00	(24.40–65.07)	
Social security[b]				
Continuous insurance	165	34.55	(27.33–42.33)	0.145
No insurance to insurance	21	14.29	(3.05–36.34)	
Insurance to no insurance	11	36.36	(10.93–69.21)	
Continuous lack of insurance	12	50.00	(21.09–78.91)	
Employment Status				
Continuous employment	130	26.92	(19.52–35.40)	0.005
Unemployment to employment	21	28.57	(11.28–52.18)	
Employment to unemployment	42	57.14	(40.96–72.28)	
Continuous unemployment	21	38.10	(18.11–61.56)	
Working hours per week[c]				
Continuity in hours	120	27.50	(19.75–36.40)	0.038
Decreased hours	49	36.73	(23.42–51.71)	
Increased hours	43	48.84	(33.31–64.54)	
Days off[d]				
Continuity in 2 or >2 days	89	31.46	(22.03–42.17)	0.046
Increased days	41	21.95	(10.56–37.61)	
Decreased days	62	37.10	(25.16–50.31)	
Continuity in <2 days	21	57.14	(34.02–78.18)	
Monthly job net income				
Continuous high /average income	47	21.28	(10.70–35.66)	0.141
Increased income	21	28.57	(11.28–52.18)	
Decreased income	67	40.30	(28.49–53.00)	
Continuous low income	79	37.97	(27.28–49.59)	
Total	214	34.11	(27.78–40.88)	–

Incidence of poor mental health per 100 individuals.
95% CI: 95% confidence interval.
a: 1 missing value.
b: 5 missing values.
c: 2 missing values.
d: 1 missing value.

Table 4 Association between poor mental health and employment paths in a sample of immigrant workers in Spain, 2008 (ITSAL I) and 2011 (ITSAL II)

Employment paths[a]	cOR (95% CI)	aOR[b] (95% CI)
Legal status		
Acquisition of Spanish nationality	1 –	1 –
Continuous legal status	2.67 (1.04–6.68)*	3.32 (1.15–9.58)*
Illegal to legal status	1.87 (0.51–8.81)	1.91 (0.42–8.63)
Continuous illegal status	13.99 (2.25–87.02)*	17.34 (1.96–153.23)*
Employment contract		
Continuous contract	1 –	1 –
Change to contract	1.81 (0.74–4.46)	1.82 (0.66–5.01)
Change to no contract	1.68 (0.69–4.09)	2.23 (0.82–6.12)
Continuous lack of contract	1.85 (0.78–4.41)	2.24 (0.76–6.67)
Social security		
Continuous insurance	1 –	1 –
No insurance to insurance	0.32 (0.09–1.12)**	0.10 (0.02–0.48)*
Insurance to no insurance	1.08 (0.30–3.85)	1.28 (0.32–5.15)
Continuous lack of insurance	1.89 (0.58–6.14)	2.62 (0.62–11.17)
Employment status[c]		
Continuous employment	1 –	1 –
Unemployment to employment	1.09 (0.39–3.02)	0.93 (0.29–2.92)
Employment to unemployment	3.62 (1.76–7.46)*	3.62 (1.64–7.96)*
Continuous unemployment	1.67 (0.64–4.37)	1.50 (0.51–4.46)
Working hours week		
Continuity in hours	1 –	1 –
Decreased hours	1.53 (0.76–3.10)	1.59 (0.71–3.53)
Increased hours	2.52 (1.23–5.17)*	2.35 (1.02–5.44)*
Days off		
Continuity in 2 or >2 days	1 –	1.00 –
Increased days	0.61 (0.26–1.45)	0.70 (0.27–1.81)
Decreased days	1.28 (0.65–2.54)	1.51 (0.69–3.28)
Continuity in <2 days	2.90 (1.10–7.69)*	2.80 (0.91–8.61)**
Monthly job net income		
Continuous high /average income	1 –	1 –
Increased income	1.48 (0.46–4.80)	1.26 (0.32–4.89)
Decreased income	2.50 (1.07–5.86)*	2.75 (1.08–7.00)*
Continuous low income	2.27 (0.98–5.21)**	2.73 (0.98–7.62)**

cOR: crude odds ratio; aOR: adjusted odds ratio; 95% CI: 95% confidence interval.
a: Separate logistic regression models for each employment path.
b: Adjusted for sex, age, occupation, educational level, country of origin and employment status in 2011 (ITSAL II).
c: Adjusted for sex, age, occupation, educational level and country of origin.
*$P < 0.05$; **$P < 0.10$.

same point in time as the exposure; thus, any change in the health status might have occurred before the employment situation referred to in ITSAL II. The study's strengths include the opportunity to analyse information about a hard-to-reach population (including people without permits and/or employment contracts), as well as the possibility of a follow-up of the same participants at two important time points, 2008 (the end of a period of economic and social growth) and 2011 (consolidation of a period of strong economic recession). Although it is impossible to state that the deterioration identified in employment conditions was attributable solely to the crisis, the macroeconomic indicators and national and international trends observed suggest a relationship between both phenomena. Thus, the main strength of this study is its longitudinal nature and the analysis of employment conditions converted into employment paths, a socioeconomic indicator scarcely analysed in relation to health.

In summary, this study provides an assessment of the effects of different employment paths on the mental health of immigrant workers in Spain in the context of economic crisis, highlighting the differences in mental health between the conditions analysed. Nonetheless, considering the aforementioned limitations, caution should be exercised when interpreting the results. Therefore, we suggest the need for similar studies using larger samples, not only to increase statistical power but also to perform separate analyses, conduct intergroup comparisons and identify possible differences by gender, country of origin, length of residence or family reunification (variables whose differentiating roles have been clearly demonstrated in previous studies)[19,37] and also with autochthones, thus extending existing knowledge. These findings indicate the need to design and modify social and employment policies, which are closely linked to the social determinants of health associated with migration.

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Conflicts of interest: None declared.

Key points

- This is the first study to analyse the effects of changes in employment paths on mental health in a context of economic crisis in immigrant population.

- The main findings indicate that the economic crisis has contributed to deterioration in Spanish immigrants' employment conditions, resulting in poorer mental health in this collective, especially among those whose employment conditions deteriorated or were negative at the beginning of the period.
- The findings constitute warning signs that indicate the need to design and modify social and employment policies closely linked to the social determinants of health associated with migration.

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