Unemployment and Mental Health: Understanding the Interactions Among Gender, Family Roles, and Social Class

Lucía Artazcoz, MPH, Joan Benach, PhD, Carme Borrell, PhD, and Immaculada Cortès, MPH

One of the most studied health effects of unemployment is the lower level of psychological well-being among the unemployed. 1-3 However, despite the high prevalence of unemployment and mental health disorders among women, the different position of men and women in the labor market, and gender differences in the social determinants of mental health, 4-6 potential gender differences in reactions to unemployment have rarely been addressed. Indeed, many studies focusing on unemployment have included only men. 7,8

The financial strain of unemployment can cause poor mental health, and studies have reported the beneficial effects of unemployment compensation in such contexts.9-11 However, unemployment can also be associated with poor mental health as a result of the absence of nonfinancial benefits provided by one's job, such as social status, selfesteem, physical and mental activity, and use of one's skills.1

Although the economic and noneconomic losses implied by unemployment might not be directly linked to poor mental health, their effects are probably mediated by individual social contexts, which, to a great extent, are determined by family roles and social class. For example, the impact of unemployment on people's mental health could depend on their investment in their family responsibilities (which typically have different meanings for men and women 12-14). However, little is known about the influence of social class as a potential modifier of the relation between unemployment and mental health or the possible interactions between gender, family roles, and social class.

One of the main problems in studying the effects of unemployment on health is the low number of unemployed individuals involved in research assessing representative samples of the general working population. Many studies focus on homogeneous groups employed in 1 particular specialty or organiza-

Objectives. We examined gender differences in the effects of unemployment on mental health and assessed whether such effects are associated with interactions among gender, family roles, and social class.

Methods. Our analysis included 3881 employed and 638 unemployed workers, aged 25 to 64 years, interviewed in the 1994 Catalonian Health Survey.

Results. Unemployment had more of an effect on the mental health of men (age-adjusted odds ratio [OR]=2.98; 95% confidence interval [CI]=2.30, 3.87) than on that of women (age-adjusted OR=1.51; 95% CI=1.11, 2.06). Gender differences in effects were related to family responsibilities and social class.

Conclusions. Understanding the effects of unemployment on mental health requires consideration of the interactions among gender, family responsibilities, and social class. (Am J Public Health. 2004;94:82–88)

tion, thus limiting the extent to which findings can be generalized.

During the 1990s, Spain had the highest rate of unemployment in the European Union. The objectives of the present study, which involved a representative sample of the Catalonian population, were to (1) examine gender differences in the effects of unemployment on mental health and (2) assess whether these effects depend on interactions between gender, family roles, and social class. Furthermore, we assessed the associated role of unemployment benefits.

METHODS

Data

The data for this study were derived from the 1994 Catalonian Health Survey, a crosssectional survey based on a representative sample of 15 000 members of the noninstitutionalized population of Catalonia, a region in northeastern of Spain with about 6 million inhabitants. The survey gathered self-reported information on morbidity, health status, healthrelated behaviors, and use of health care services, as well as sociodemographic data. Participants were randomly selected via a multiple-stage random sampling strategy.

In the initial sampling stage, municipalities were selected from each of the 8 regions of Catalonia (or municipal districts in the case

of the Barcelona City health region) according to their population size. In each of the resulting strata, cluster random sampling, involving proportional probabilities and municipality (or district) weights, was used to select individuals for participation. As a means of avoiding potential seasonal biases in responses, questionnaires were conducted, at respondents' homes, throughout January to December 1994. Only 5.4% of respondents were replaced as a result of refusal or absence. Full details of the survey have been reported elsewhere.15

For the purposes of this study, we selected a subsample of all employed and unemployed workers aged 25 to 64 years. To avoid possible reverse causation effects, we excluded from our analysis those individuals reporting a limiting long-standing illness in the 12 months preceding the survey, those who had never been employed, and those who were not actively looking for work. Among those who were employed, 8% of men and 12% of women reported having experienced a limiting long-standing illness in the previous 12 months; corresponding percentages among unemployed men and women were 10% and 17%, respectively. The final sample under analysis was composed of 2422 men and 1459 women who were employed and 371 men and 267 women who were unemployed.

Measures

Mental health. Mental health was measured with the 12-item version of the General Health Questionnaire, 16 a common instrument used in unemployment research.2 This screening measure detects current, diagnosable psychiatric disorders, focusing on breaks in normal functioning rather than lifelong traits; thus, it assesses personality disorders or patterns of adjustment associated with distress. Here we used a 2-point scoring method, rating a problem as absent (0) or present (1) according to the method recommended by the developers of the questionnaire. Responses were summed, and those with scores of 3 or above (out of 12) were classified as having poor mental health.17

Employment status. Two characteristics of unemployment were considered: receipt of unemployment benefits (yes or no) and duration of unemployment (4 categories: less than 6 months, 6-12 months, more than 12 months to 24 months, and more than 24 months). To facilitate our estimates of the impact of unemployment on mental health, we classified employment status into 3 categories: employed, unemployed and receiving compensation, and unemployed and not receiving compensation.

Family roles. Marital status was classified into 3 categories: single; married or cohabiting; and separated, divorced, or widowed. Parental status was defined according to whether respondents had children younger than 15 years living in the home.

Occupational social class. Social class, assigned according to current occupation (among those who were employed) or most recent occupation (among those who were unemployed), was measured with a widely used Spanish adaptation of the British classification system. 18 Class I includes managerial and senior technical workers and freelance professionals; class II includes workers in intermediate occupations and managers in commerce; class III comprises skilled nonmanual workers; class IV consists of skilled (IVa) and semiskilled (IVb) manual workers; and class V comprises unskilled manual workers. Because of the low number of individuals in some of these categories, the 6 original social classes were collapsed into 2

broad groups: nonmanual (class I, II, or III) and manual (class IVa, IVb, or V).

Data Analysis

The association between poor mental health status and unemployment was assessed separately for men and women. Multiple logistic regression models were fit to allow calculation of adjusted odds ratios (ORs) and 95% confidence intervals (CIs). Analyses of interactions between gender, family roles, and social class were carried out in several steps through the addition of successive levels of stratification. First, the association between unemployment and poor mental health was tested; second, respondents in the unemployed category were divided into those receiving compensation and those not receiving compensation; and, third, the analysis was stratified by social class (manual vs nonmanual). The final level of stratification involved family roles (marital and parental status). We assessed goodness of fit using the Hosmer-Lemeshow test. 19 All odds ratios were adjusted for age, and analyses included the weights derived from the complex sampling design.20

RESULTS

General Description of the Population

Sociodemographic characteristics of the study sample, according to gender and social class, are shown in Table 1. Unemployment rates were higher among women and those in the manual group. Most of those who were employed were married or cohabiting, and about half had children aged younger than 15 years living in the home; however, the percentage was lower among unemployed men in the nonmanual group, at 28%.

Half of unemployed female respondents received unemployment compensation, as opposed to approximately two thirds of unemployed male respondents. Women were more likely than men to report having been unemployed for more than 24 months.

Prevalence of Poor Mental Health

Table 2 shows prevalence rates of poor mental health across the different independent variables. Among both men and women, those who were employed were less likely to have poor mental health; however, differences between employed and unemployed respondents were smaller in the case of women in the manual group. Levels of poor mental health were similar for single and married workers of both genders and in both social class groups.

In the case of single respondents, both male and female, rates of poor mental health were much higher among those who were unemployed. A different pattern was observed among married people. Poor mental health was significantly more likely among unemployed men than among employed men, while only slight differences were found between employed and unemployed women. Moreover, rates of poor mental health were lower among women with children living in the home than among women without children living at home.

Regarding characteristics of unemployment, no relation was observed between duration of unemployment and mental health. However, except in the case of men in the nonmanual group, the prevalence of poor mental health was higher among respondents who were unemployed and not receiving benefits.

Mental Health, Unemployment, Gender, and Social Class

Table 3 shows associations between unemployment and poor mental health status. Unemployment had a higher impact on men's mental health (adjusted OR=2.98; 95% CI = 2.30, 3.87) than on women's mental health (adjusted OR=1.51; 95% CI=1.11, 2.06).

Unemployment benefits exhibited a protective effect for both men and women, and no differences in mental health were found between employed women and unemployed women receiving compensation. Being unemployed and not receiving benefits had a higher impact on men's than women's mental health. However, social class differences were found among men in this category; those in the manual group (adjusted OR=6.56; 95% CI=4.23, 10.16) were at higher risk of poor mental health than men in the nonmanual group (adjusted OR=2.88; 95% CI=1.34, 6.10).

Family Roles

The patterns of association between unemployment and mental health became more

RESEARCH AND PRACTICE

TABLE 1—General Characteristics of the Study Population, by Gender, Employment Status, and Social Class: Catalonian Health Survey, 1994

	Men, %			Women, %				
	Employed		Unemployed		Employed		Unemployed	
	Nonmanual (n = 1201)	Manual (n = 1221)	Nonmanual (n = 110)	Manual (n = 261)	Nonmanual (n = 845)	Manual (n = 614)	Nonmanual (n = 105)	Manual (n = 162)
Unemployment rate, %			8.4	17.6			11.1	20.9
Family roles, %								
Marital status								
Single	16.7	17.7	27.4	25.5	23.8	12.4	26.2	14.6
Married/cohabiting	81.6	80.2	69.0	70.8	68.7	76.9	64.6	75.5
Separated/divorced/widowed	1.7	2.1	3.6	3.7	7.5	10.7	9.2	9.9
Children younger than 15 years living in home	41.8	43.3	27.6	40.1	45.0	47.6	53.8	49.9
Unemployment characteristics, %								
Receiving unemployment benefits			66.3	63.3			50.1	54.7
Duration of unemployment, mo								
6 or less			27.1	30.5			20.4	19.8
7-12			28.0	23.4			32.0	24.7
13-24			35.5	28.9			24.3	27.2
More than 24			9.3	17.2			23.3	26.4
Mean age, y (SD)	42.2 (10.3)	42.8 (10.7)	44.1 (11.7)	42.9 (12.2)	39.2 (9.9)	41.4 (10.2)	35.6 (8.5)	37.8 (9.8)

TABLE 2—Prevalence of Poor Mental Health Across Independent Variables, by Gender, Employment Status, and Social Class: Catalonian Health Survey, 1994

	Men, %			Women, %				
	Employed		Unemployed		Employed		Unemployed	
	Nonmanual (n = 1201)	Manual (n = 1221)	Nonmanual (n = 110)	Manual (n = 261)	Nonmanual (n = 845)	Manual (n = 614)	Nonmanual (n = 105)	Manual (n = 162)
Poor mental health	11.0	11.6	25.8	28.0	15.1	22.5	23.3	26.1
Family roles								
Marital status								
Single	13.0	14.4	26.7	28.4	17.3	22.4	40.7	34.8
Married/cohabiting	10.7	11.0	26.3	27.6	13.4	20.6	17.6	24.4
Separated/divorced/widowed	4.8	12.0	a	30.0	22.2	36.9	10.0	25.0
Children younger than 15 years living in home								
No	11.0	11.4	23.3	28.6	16.2	22.4	36.7	32.1
Yes	10.9	11.8	26.3	27.6	13.6	22.6	12.3	19.8
Unemployment characteristics								
Receiving unemployment benefits								
No			27.0	46.9			34.0	28.8
Yes			25.7	17.0			13.2	23.6
Duration of unemployment, mo								
6 or less			17.9	28.2			23.8	37.5
7-12			30.0	23.7			24.2	32.5
13-24			28.9	25.7			12.0	9.1
More than 24			18.0	40.9			33.3	28.3

^aInsufficient number of respondents in group.

TABLE 3—Associations Between Unemployment and Poor Mental Health Status, by Gender: Catalonian Health Survey, 1994

	Men, Age-Adjusted OR (95% CI)	Women, Age-Adjusted OR (95% CI)
	Stratification by gender	
Employment status		
Employed	1.00	1.00
Unemployed	2.98 (2.30, 3.87)***	1.51 (1.11, 2.06)**
Stratification	on by gender and unemployment benefits	
Employment-compensation status		
Employed	1.00	1.00
Unemployed with no benefits	5.40 (3.73, 7.80)***	2.02 (1.35, 3.02)***
Unemployed with benefits	1.96 (1.39, 2.77)***	1.12 (0.73, 1.73)
Stratification by g	ender, unemployment benefits, and social c	lass
Nonmanual group		
Employment-compensation status		
Employed	1.00	1.00
Unemployed with no benefits	2.88 (1.34, 6.10)**	2.85 (1.55, 5.21)**
Unemployed with benefits	2.89 (1.65, 5.05)**	0.83 (0.36, 1.89)
Manual group		
Employment-compensation status		
Employed	1.00	1.00
Unemployed with no benefits	6.56 (4.23, 10.16)***	1.51 (0.87, 2.62)
Unemployed with benefits	1.58 (1.02, 2.45) [*]	1.09 (0.65, 1.84)

Note. OR = odds ratio; CI = confidence interval.

complex when, in addition to unemployment compensation, gender, and social class, family roles were taken into account. Data from these analyses are presented in Table 4.

In the case of single employed respondents, neither gender nor social class differences were found in the impact of unemployment on mental health. In addition, there was no association between unemployment and mental health among single respondents receiving benefits; however, being unemployed and receiving no benefits was associated with poor mental health status. The magnitude of this association was similar for men and women and for those in the nonmanual and manual groups.

Among married respondents, the relation between unemployment and mental health status differed according to gender and social class. Being married appeared to have a protective effect on women. Among married women, unemployment was only associated

with poor mental health among those in the nonmanual group who did not receive benefits; however, the magnitude of the association (adjusted OR=2.60; 95% CI=1.15, 5.89) was lower than that for single women in the same group.

Marriage had the reverse effect on unemployed men in the manual group. Among married men in the manual group, unemployment was associated with poor mental health in the case of both those receiving benefits and those not receiving benefits, but the magnitude of the association was higher in the latter situation. Moreover, the magnitude of this association was higher than that for single respondents in the same employment situation (adjusted OR=7.08; 95% CI=4.06, 12.34, for married men in the manual group who were not receiving benefits and adjusted OR=1.93; 95% CI=1.19, 3.13, for married men in the same group who were receiving benefits). Unexpectedly, among married men

in the nonmanual group, being unemployed and receiving compensation was positively associated with poor mental health status (adjusted OR=3.85; 95% CI=2.10, 7.05), whereas no differences in mental health were observed between employed respondents and unemployed respondents who were not receiving benefits.

Among men, having children younger than 15 years living in the home did not exhibit a clear relationship with mental health. Among women, the findings were consistent with those observed for marital status: being unemployed and not receiving benefits was associated with poor mental health status only in the case of women with no children. Moreover, the impact was greater among those in the nonmanual group (adjusted OR=5.11; 95% CI=2.25, 11.61) than among those in the manual group (adjusted OR=2.60; 95% CI = 1.47, 5.47).

DISCUSSION

Our study produced 3 main findings. First, the beneficial effects of unemployment compensation are not equally distributed across different gender, family role, and social class categories. Second, the more pronounced effect of unemployment on men's mental health is accounted for by the presence of family responsibilities; marriage increased the risk of poor mental health among men in the manual group, whereas, among women, being married and (primarily) living with children acted as a buffer. Finally, the mediating role of social class in determining the impact of unemployment on mental health differs according to gender and family roles.

Unemployment and Benefits

In 1994 in Spain, unemployed workers received unemployment insurance compensation from the state if they had worked for at least 12 months. The minimum duration of the benefits was 120 days, and the maximum was 720 days. However, some workers who remained unemployed after this period received benefits for a maximum duration of 18 months or, in exceptional cases, 30 months. The main requirement for receipt of such benefits was a total family income, divided by

^{*}P<.05; **P<.01; ***P<.001.

TABLE 4—Associations Between Poor Mental Health Status and Unemployment, by Gender, Social Class, and Family Roles: Catalonian Health Survey, 1994

Stratification by gender, unemployment benefits, social class, and marital status

	Men, Age-Adjust	ed OR (95% CI)	Women, Age-Adjusted OR (95% CI)		
	Single	Married/Cohabiting	Single	Married/Cohabiting	
Nonmanual group					
Employed	1.00	1.00	1.00	1.00	
Unemployed with no benefits	5.26 (1.81, 15.28)**	1.39 (0.38, 5.14)	4.91 (1.63, 14.78)**	2.60 (1.15, 5.89)*	
Unemployed with benefits	0.47 (0.06, 3.98)	3.85 (2.10, 7.05)***	1.53 (0.42, 5.56)	0.67 (0.21, 2.09)	
Manual group					
Employed	1.00	1.00	1.00	1.00	
Unemployed with no benefits	4.49 (2.07, 9.75)***	7.08 (4.06, 12.34)***	3.92 (1.22, 12.53)*	1.10 (0.53, 2.28)	
Unemployed with benefits	0.88 (0.28, 2.80)	1.93 (1.19, 3.13)**	a	1.40 (0.80, 2.47)	

Stratification by gender, unemployment benefits, social class, and parental status

	Men, OR	(95% CI)	Women, OR (95% CI)		
	No Children	Living With Children	No Children	Living With Children	
Nonmanual group					
Employed	1.00	1.00	1.00	1.00	
Unemployed with no benefits	2.83 (1.20, 6.70)*	2.73 (0.55, 13.67)	5.11 (2.25, 11.61)***	1.31 (0.46, 3.74)	
Unemployed with benefits	3.08 (1.57, 6.04)**	2.43 (0.88, 6.72)	1.16 (0.39, 3.41)	0.62 (0.16, 2.35)	
Manual group					
Employed	1.00	1.00	1.00	1.00	
Unemployed with no benefits	7.42 (4.18, 13.18)***	5.37 (2.68, 10.74)***	2.60 (1.47, 5.47)*	0.77 (0.31, 1.89)	
Unemployed with benefits	1.28 (0.70, 2.35)	2.09 (1.09, 4.01)*	1.16 (0.56, 2.38)	1.05 (0.49, 2.26)	

Note. OR = odds ratio; CI = confidence interval.

^aInsufficient number of respondents in group.

the number of household members, that was equal to or lower than 75% of the minimum salary established by law (an income about 3 times lower than the mean wage of Spanish workers). Thus, in the case of most unemployed individuals, the presence of another household member with a low- or mediumwage job would be sufficient to disallow receipt of benefits.

It has been reported that unemployment compensation can play an important role in ameliorating the impact of unemployment on health. 21-23 Our findings suggest that the beneficial effects of unemployment compensation were greater in the case of single respondents and married men in the male group. These results emphasize the importance, in analyses of the effects of unemployment on mental health, of conceptualizing employment status as a 3-category variable (i.e., employed, unemployed with benefits,

and unemployed without benefits) rather than a dichotomous variable.

Studies have indicated that the beneficial effects of unemployment compensation depend on the type of compensation; whereas insurance compensation has been shown to have the expected beneficial effect, meanstested benefits have not.9-11 Unfortunately, information on types of benefits was not available in our data, but we still found an overall beneficial effect of receipt of unemployment benefits on mental health.

Unemployment and Family Roles

Among single respondents, being unemployed and not receiving compensation was related to poor mental health status, and the magnitude of the association was similar for men and women in the manual and nonmanual groups. Marriage and parenthood mediated the effect of unemployment on mental

health in different ways for men and women. Being married acted as a buffer for women but had the reverse effect for men, at least those in the manual group. Among women, a protective effect was also observed for having children living in the home.

Among married women, being unemployed and not receiving benefits was related to poor mental health status only in the case of those in the nonmanual group, and the magnitude of the association was much lower than that for single women in the same employment situation. Interestingly, a more consistent pattern of protection was observed for motherhood. Among women with children living in the home, unemployment was not associated with poor mental health status after taking into account benefit status and social class.

The literature focuses on 3 reasons why marriage has a protective effect on wellbeing-economic benefits, emotional support, and the general benefits of living with another person²⁴-each of which could potentially explain why, in the case of women, being unemployed and not receiving benefits had a greater impact among those who were single. We found that even though most single unemployed women in our sample who did not receive benefits lived in their parents' home and thus had their basic economic and emotional needs guaranteed, marriage-and, to a greater extent, motherhood-still seemed to provide an additional advantage.

In many cases married women, even those who are unemployed and not receiving benefits, have their basic economic needs guaranteed by their husbands' income. Moreover, women can replace the rewards formerly provided by their job with the nurturant family role they play as their reason to go on from 1 day to the next.25 This observation is consistent with the role enhancement hypothesis²⁶: when problems arise in 1 role (e.g., employment), other roles (e.g., caring for children) may provide alternative rewards.

In addition, in the case of single unemployed women, there may be a stigmatizing effect associated with their receiving economic support from their parents for nothing in exchange. Conversely, married women can exchange the economic support received

^{*}P<.05; **P<.01; ***P<.001.

RESEARCH AND PRACTICE

from their husbands with caring for their children. Therefore, contrary to what some authors have suggested, 27,28 it seems that greater involvement in family responsibilities, rather than lower levels of job attachment, explains the reduced impact of unemployment among women.

Marriage seemed to have the reverse effect among unemployed men in the manual group. The risk of poor mental health associated with being unemployed and not receiving benefits was higher among men who were married or cohabiting than among single men. This finding contradicts previous results indicating that married men are in better health than those who are single.²⁹⁻³¹ The high risk of poor mental health status in this group, much higher than that for single respondents of the same social class, suggests that in addition to stigmatization, economic problems may be a source of poor mental health.

Thus, marriage can be a source of serious financial strain for unemployed men in lower social class categories, mainly when they are the main breadwinners (as may well be the case for most of these workers). Moreover, as a result of their traditionally low involvement in nurturant roles, men's family responsibilities typically cannot successfully replace their job as an alternative source of meaning in their life.

Unemployment and Social Class

The mediating role of social class differed according to gender and family roles. In the case of married men, the impact of unemployment was higher among those in the manual group; in the case of women with no nurturant roles, the greatest effect was observed among those in the nonmanual group.

Among married women, no relation between unemployment and poor mental health was found for those in the manual group, but a statistically significant association was observed for nonmanual workers (however, the magnitude of the association was lower than that for single women in the same employment situation). Consistent with this finding, being unemployed and receiving no benefits was associated with poor mental health status only among women who did not have children, and the magnitude of the association

was higher for those in the nonmanual group. This result suggests that, in the case of unemployed women who do not play nurturant roles that can compensate for job loss, losing a high-status job has more of an impact on mental health status than losing a manual job.

A different social class pattern was observed among married men. Among these men, contrary to the case with women, the impact of unemployment was greater among those in the manual group. Given men's traditional provider role, the financial strain associated with unemployment, which is higher among those of lower social classes, could explain this finding. Financial problems would not be as relevant among those in the nonmanual group. For example, in a study of white-collar civil servants, Ferrie et al.³² found that adjustment for financial strain accounted for few of the observed associations between unemployment and psychological well-being.

There was an unexpected result among married men in the nonmanual group; that is, no differences in mental health status were observed between those who were employed and those who were unemployed and receiving no benefits, while being unemployed and receiving benefits was associated with poor mental health status. Studies have shown that decreases in income have negative effects on the mental health of married men, and this finding has been attributed to alterations in the distribution of power between husband and wife.³³ In the case of married men in nonmanual social class categories, receiving unemployment benefits could be more stigmatizing than receiving no benefits; however, this is only speculation, and such issues deserve further research.

Limitations

Although we cannot entirely rule out the possibility that poor mental health causes unemployment, we reduced reverse causation effects by excluding individuals who reported a limiting long-standing illness in the previous 12 months, those who had never had a job, and those who were not actively seeking a job.^{3,21} Thus, it seems reasonable to assume that, in most cases, unemployment was not caused by a health problem and that our finding of an association between poor mental

health status and unemployment can be viewed as being obtained with a sample of "healthy" respondents.

CONCLUSIONS

We have shown that the effects of unemployment on mental health are not equally distributed across different gender, family role, and social class categories. Apparently, it is not the value that men and women assign to a paid job that explains the lower effect of unemployment on women's mental health but, rather, the different roles played by men and women in terms of family responsibilities. Given men's traditional role as primary providers, family responsibilities increase the effects of unemployment on their mental health. Conversely, the nurturant roles of women act as a buffer. The mediating effect of social class was found to differ according to gender and family roles.

Our findings stress the importance of considering gender differences and social contexts in analyses of the impact of unemployment on mental health. Differences in the effects of unemployment related to receipt of benefits should be taken into account in future research. Moreover, differences in such effects according to gender, family roles, and social class should be considered in the formulation of policies regarding unemployment compensation. Economic support can be viewed as the main strategy, but tailored interventions may be needed for specific groups of unemployed individuals.

About the Authors

Lucia Artazcoz and Joan Benach are with the Department of Experimental Sciences and Health, Universitat Pompeu Fabra, Barcelona, Spain. Lucía Artazcoz, Carme Borrell, and Immaculada Cortès are with the Agència de Salut Pública de Barcelona.

Requests for reprints should be sent to Lucia Artazcoz, MPH, Agència de Salut Pública, Pl Lesseps 1, 08023 Barcelona, Spain (e-mail: lartazco@imsb.bcn.es).

This article was accepted December 19, 2002.

Contributors

L. Artazcoz designed the study, carried out the analysis, and wrote the original and successive versions of the article. J. Benach, C. Borrell, and I. Cortès assisted in study design and interpretation of results and contributed to revisions of all versions of the article.

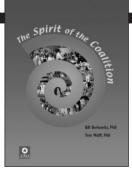
Human Participant Protection

No protocol approval was needed for this study.

References

- 1. Bartley M. Unemployment and ill health: understanding the relationship. J Epidemiol Community Health. 1994;48:333-337.
- 2. Janlert U. Unemployment as a disease and diseases of the unemployed. Scand J Work Environ Health. 1997;23(suppl 3):79-83.
- Dooley D, Fielding J, Levi L. Health and unemployment. Annu Rev Public Health. 1996;17:449-465.
- 4. Piccinelli M, Wilkinson G. Gender differences in depression. Br J Psychiatry. 2000;177:486-492.
- Qin P, Agerbo E, Westergård-Nielsen N, Eriksson T, Mortensen PB. Gender differences in risk factors for suicide in Denmark. Br J Psychiatry. 2000;177:
- Doyal L. Sex, gender, and health: the need for a new approach. BMJ. 2001;323:1061-1063.
- Bartley M, Owen C. Relation between socioeconomic status, employment and health during economic change, 1973-93. BMJ. 1996;313:445-449.
- Leino-Arjas P, Liira J, Mutanen P, Malmivaara A, Martikainen E. Predictors and consequences of unemployment among construction workers: prospective cohort study. BMJ. 1999;319:600-605.
- Rodríguez E, Lasch K, Mead JP. The potential role of unemployment benefits in shaping the mental health impact of unemployment. Int J Health Serv. 1997;27: 601 - 623
- 10. Rodríguez E, Frongillo EA, Chandra P. Do social programmes contribute to mental well-being? The long-term impact of unemployment on depression in the United States. Int J Epidemiol. 2001;30:163-170.
- 11. Rodríguez E. Keeping the unemployed healthy: the effect of means tested and entitlement benefits in Britain, Germany, and the United States. Am J Public Health. 2001;91:1403-1411.
- 12. Hall EM. Double exposure: the combined impact of the home and work environments on psychosomatic strain in Swedish men and women. Int J Health Serv. 1992;22:239-260.
- 13. Hunt K, Annandale E. Just the job? Is the relationship between health and domestic and paid work gender specific? Sociol Health Illness. 1993;15:632-664.
- 14. Arber S. Class, paid employment and family roles: making sense of structural disadvantage, gender and health status. Soc Sci Med. 1991;32:425-436.
- 15. Document Tècnic Encuesta de Salud de Catalunya: Enquesta de Salut de Catalunya 1994. Barcelona, Spain: Servei Català de la Salut, Departament de Sanitat i Seguretat Social, Generalitat de Catalunya; 1995.
- 16. Goldberg D. The Detection of Psychiatric Illness by Questionnaire. Oxford, England: Oxford University Press Inc; 1972.
- 17. Goldberg D. Manual of the General Health Questionnaire. Windsor, England: NFER Publishing; 1978.
- 18. Domingo A, Marcos J. Propuesta de un indicador de la "clase social" basado en la ocupación. Gac Sanit. 1989:3:320-326
- 19. Hosmer DW, Lemeshow S. Applied Logistic Regression. New York, NY: John Wiley & Sons Inc; 1989.

- 20. Guillen M, Juncà S, Rue M, et al. Effect of the sample design in the analysis of surveys with a complex design: application to the Catalan Health Interview Survey [in Spanish]. Gac Sanit. 2000;14: 399-402
- 21. Leeflang RLI, Klein-Hesselink J, Spruit P. Health effects of unemployment II: men and women. Soc Sci Med. 1992;34:351-363.
- 22. Kessler RC, Turner JB, House JS. Effects of unemployment on health in a community survey: main, modifying and mediating effects. J Soc Issues. 1988;34: 341 - 350.
- 23. Rodgers B. Socio-economic status, employment and neurosis. Soc Psychiatry Epidemiol. 1991;26: 104 - 114.
- 24. Ross EC, Mirowsky J, Goldsteen K. The impact of the family on health. I Marriage Fam. 1990;52: 1059 - 1078
- 25. Bartley M, Popay J, Plewis I. Domestic conditions, paid employment and women's experience of ill-health. Sociol Health Illness. 1992;14:313-343.
- 26. Sorensen G, Verbrugge LM. Women, work, and health. Annu Rev Public Health. 1987;8:235-251.
- 27. Lahelma E. Unemployment and mental wellbeing: elaboration of the relationship. Int J Health Serv. 1992:22:261-274.
- 28. Jahoda M. Employment and Unemployment: A Social Psychological Analysis. New York, NY: Cambridge University Press; 1982.
- 29. Verbrugge L. Marital status and health. J Marriage Fam 1979:41:267-285
- 30. Anson O. Marital status and women's health revisited: the importance of proximate adults. J Marriage Fam. 1989:51:185-194.
- 31. Wyke S, Ford G. Competing explanations for associations between marital status and health. Soc Sci Med. 1992;34:525-532.
- 32. Ferrie JE, Martikainen P, Shipley MJ, Marmot MG, Stansfeld SA, Smith GD. Employment status and health after privatisation in white collar civil servants: prospective cohort study. BMJ. 2001;322:1-7.
- 33. Rosenfield S. The costs of sharing: wives' employment and husbands' mental health. J Health Soc Behav. 1992:33:213-225.



The Spirit of the **Coalition**

By Bill Berkowitz, PhD, and Tom Wolff, PhD

The Spirit of Coalition is about creating **L** and maintaining local community coalitions. It teaches practitioners about community building by providing the "nitty gritty" details of what makes coalitions work. The first-hand accounts, told by public health practitioners, illustrate how coalitions can be built and sustained, leading to measurable, lasting results.

Chapters include how coalitions get started, promoting and supporting the coalition, structure, funding, pitfalls, and much more.

Who will benefit by reading this book? Public Health Workers Community Organizers ■ Government Leaders ■ Public Health Educators.

> ISBN 0-87553-244-6 2000 ■ 264 pages ■ softcover \$24.00 APHA Members \$30.00 Nonmembers plus shipping and handling

American Public Health Association



Publication Sales Web: www.apha.org E-mail: APHA@TASCO1.com Tel: (301) 893-1894 FAX: (301) 843-0159 SC01J7