

# Unemployment, perceived health status and coping: A study in Southern Italy

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## Abstract.

**BACKGROUND:** Unemployment is a very stressful experience that significantly impairs an individual's perception of their overall wellbeing. Interaction between unemployment and physical health is complex.

**OBJECTIVE:** To analyze how specific coping strategies and socio-demographic variables may influence the level of physical and mental health perceived by those searching for work at an employment centre in Catanzaro, Italy.

**METHODS:** Participants completed a set of self-administrated questionnaires including a socio-demographic questionnaire, the Coping Inventory for Stressful Situations (CISS) and the SF-12 Health Survey (SF-12). A forward stepwise multiple regression analysis was used to ascertain those coping strategies significantly associated with participants' perceived health status.

**RESULTS:** Complete documentation was received from 113 registered unemployed participants, (61 men and 52 women) giving a response rate of 45%.

Physical health status was significantly and positively associated with age and task-oriented coping, while the perception of mental health was associated not only with age, but also by lower emotion-oriented coping and a low number of previous job losses.

**CONCLUSION:** The perception of health status is reduced among unemployed. Age is the only socio demographic variable that influences the perception of health status. Adaptive Task-oriented coping strategies are related to better physical health perception, whereas Emotion-oriented coping makes people prone to poorer mental health perception.

Keywords: Job loss, stress, coping strategies, physical perceived health, mental perceived health

## 1. Introduction

Unemployment is a very stressful experience that can negatively affect an individual's perception of their overall wellbeing.

Job loss has been linked to insomnia, a general sense of insecurity, shame, guilty and negative feelings [1]. Psychosocial stressors are considered facilitating factors for psychiatric conditions such as mood and anxiety disorders [2, 3]. Some social factors like education

level, age, gender [4] or geographic location [5] have also been linked to the physical and psychological problems related to unemployment.

The interaction between unemployment and physical health is complex. An increased risk of death related to drug use, alcohol abuse, cirrhosis, psychiatric disorders, cardiovascular and respiratory pathologies [6] and suicidal thoughts have been associated with stress and social marginalization experienced by unemployed people [7, 8]. Unemployment, multiple job losses and short periods without work may be associated with increased risk for acute myocardial infarction (AMI). Dupre and colleagues [9] showed in a prospective study of 13451 adults that the risk for AMI was particularly

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elevated within the first year of unemployment, but not thereafter. Job loss was also associated with an increased risk of hospitalization for alcohol-related disorders [10].

Moreover, mental health status decreases with each unemployment experience [11] increasing the risk for para-suicidal and suicidal behaviors [12, 13]. The relationship between unemployment and suicide is sensitive to demographic factors, national unemployment rates and length of time without employment [14, 15]. Results of a register-based Swedish study with a large sample showed that some individuals may be more prone to both unemployment and suicide due to underlying health-related factors [16].

According to Lazarus and Folkman, coping is the “process of attempting to manage the demands created by stressful events that are appraised as taxing or exceeding a person’s resources” [17]. For this reason, coping strategies mediate the potentially negative effects of daily stressors and thus influence mental health [2]. The development of successful coping behaviors is likely to reduce stress and help a person to solve personal problems and maintain their psychological wellbeing.

The relationship between unemployment and physical/mental health has been studied previously [6, 9–13, 18–19]. In the current study we analyze how coping strategies among a sample of unemployed people may be valid predictors of their physical and mental health status.

We hypothesize that unemployment, as an important stressor, could influence physical and mental health and worsen the perceived wellbeing of individuals with inadequate coping strategies [18]. Thus, it would be important to examine how coping strategies, as stress management skills, can influence the health status and the perceived health status among unemployed people.

The aim of this study was to determine whether specific coping strategies and socio-demographic variables were associated with the level of physical and mental health reported by unemployed men and women.

## 2. Methods

### 2.1. Participants

People who have transited at an employment center in Catanzaro (Italy) during October 2010 to ask for various information (e.g. unemployment status, publication of new job vacancies, actions to obtain the certification

status of unemployed) ( $N=300$ ) were invited to participate in the study. Under the authorization of the Director of the Provincial Employment Centre one of the authors asked people in the Centre waiting room for their consent to participate in a research study designed to evaluate the psychological consequences of unemployment. Inclusion criteria were: open to both men and women without any age restrictions who had experienced unemployment in the past, had lost a job, and were searching for employment.

The researcher informed these individuals that participation was voluntary, that there were no right or wrong answers, and that their data would be kept confidential. Written informed consent was obtained from 136 Caucasian people, 61 men and 52 women. The size of the pool was  $N=300$  giving a response rate of 45%. The recruitment respected the regulations regarding privacy of the individuals (n. 675 31 December 1996 – Protection of people and other subjects regarding personal data treatment).

### 2.2. Assessment

Participants completed a set of self-administrated questionnaires. The demographic data collected included: age, gender, marital status, familial status, educational level, job title, previous work, and length of unemployment. All participants completed the validated Italian versions of two questionnaires: The Coping Inventory for Stressful Situations (CISS) [20, 21] and the SF-12v2 Health Survey (SF-12) [22].

The CISS is a 48-item, self-administered questionnaire that addresses three main dimensions of coping styles: Task-Oriented (TO), Emotion-Oriented (EO) and Avoidance-Oriented (AO). AO coping is subdivided into two subscales the Distraction (AO-D) and the Social (AO-S). The test does not provide any cut-off points only dimensional descriptions. As coping strategies play a significant role in adaptation to stressful life events, participants’ coping styles were first examined and the association to perceived physical and mental health has been subsequently assessed.

The SF-12 uses 12 questions to measure functional health and well-being from a subjective point of view providing two final scores about the subject’s perception of his/her own physical and mental state. The two final scores are the Physical Component Summary (PCS) and Mental Component Summary (MCS). Higher scores indicate better-perceived health status. The Italian normative data for general population indicate the following average scores: men  $PCS = 55.24 \pm 8.68$ ; men

MCS = 53.58 ± 9.09; women PCS = 53.79 ± 10.09; women MCS = 52.71 ± 10.57 [22].

### 2.3. Statistical design

The Statistical Packages for the Social Sciences (SPSS) version 18 was used for statistical analysis. Data are presented as means, standard deviations (SD), frequencies and percentages.

Univariate analysis included *t*-Test for independent and paired samples when numerical variables were compared and Chi-square for categorical variables comparison. A forward Stepwise Multiple Linear Regression Analysis was performed to assess alternatively the association between PCS and MCS and the dimensions of CISS (TO, EO and AO, continuous) as independent predictors, correcting for age (continuous), gender (male = 1; female = 2), education (elementary = 1; medium school = 2; high school = 3; university degree = 4), number of previous jobs (continuous), and time of unemployment (<6 months = 1;

6–12 months = 2; 12–24 months = 3; >24 months = 4). Probability for stepwise entry and removal were respectively set at 0.2 and 0.4. Type I error was set at  $p \leq 0.05$ . Cohen’s effect sizes (ESs) were calculated; ES ≤ 0.2, from 0.3 to 0.6, from 0.7 to 1.2 and >1.2 were respectively considered as trivial, small, moderate and large.

## 3. Results

### 3.1. Sample description

The size of the sample pool was 300 people and 136 of them agreed to participate, giving a response rate of 45%. Twenty-three out of 136 subjects (16.9%) gave incomplete answers and were excluded from the analysis. The final sample was made of 61 men and 52 women (Table 1). No significant gender-related differences were found with regard to socio-demographics with the sole exception of previous employment. The average age of participants was 31.8 ± 9.6. Nearly half were

Table 1  
Sample description and comparison between genders

|  |  | Sample<br>N = 113 | Men<br>N = 61 | Women<br>N = 52 | Statistics             | <i>p</i>         |
|--|--|-------------------|---------------|-----------------|------------------------|------------------|
| Age, mean (SD)                             |  | 31.8 (9.7)        | 30.6 (8.7)    | 33.1 (10.6)     | T = -1.38              | 0.172            |
| Marital Status, Fr (%)                     | Single   | 66 (58.4)         | 39 (63.9)     | 27 (51.9)       | X <sup>2</sup> = 2.62  | 0.454            |
|  | Married  | 37 (32.7)         | 18 (29.5)     | 19 (36.5)       |                        |                  |
|  | Divorced   | 9 (8.0)           | 4 (6.6)       | 5 (9.6)         |                        |                  |
|  | Widow  | 1 (0.9)           | 0 (0.0)       | 1 (1.9)         |                        |                  |
| Living Arrangements, Fr (%)                | living in parent’s home                                | 58 (51.3)         | 33 (54.1)     | 25 (48.1)       | X <sup>2</sup> = 5.26  | 0.385            |
|  | living alone   | 13 (11.5)         | 8 (13.1)      | 5 (9.6)         |                        |                  |
|  | living alone with children                             | 4 (3.5)           | 0 (0.0)       | 4 (7.7)         |                        |                  |
|  | living with partner without children                   | 9 (8.0)           | 5 (8.2)       | 4 (7.7)         |                        |                  |
|  | living with partner and children                       | 27 (23.9)         | 14 (23.0)     | 13 (25.0)       |                        |                  |
|  | living with partner, children and other family members | 2 (1.8)           | 1 (1.6)       | 1 (1.9)         |                        |                  |
| Educational Level, Fr (%)                  | Elementary   | 1 (0.9)           | 1 (1.6)       | 0 (0.0)         | X <sup>2</sup> = 1.29  | 0.731            |
|  | Medium School  | 21 (18.6)         | 12 (19.7)     | 9 (17.3)        |                        |                  |
|  | High School  | 68 (60.2)         | 37 (60.7)     | 31 (59.6)       |                        |                  |
|  | University degree                                      | 23 (20.4)         | 11 (18.0)     | 12 (23.1)       |                        |                  |
| Previous Employment, Fr (%)                | self-employed  | 23 (20.4)         | 16 (26.2)     | 7 (13.5)        | X <sup>2</sup> = 18.02 | <b>&lt;0.001</b> |
|  | employee   | 61 (54.0)         | 37 (60.7)     | 24 (46.2)       |                        |                  |
|  | domestic assistant                                     | 16 (14.2)         | 1 (1.6)       | 15 (28.8)       |                        |                  |
|  | other  | 13 (11.5)         | 7 (11.5)      | 6 (11.5)        |                        |                  |
| Number of different positions held, Fr (%) | 1  | 25 (22.1)         | 10 (16.4)     | 15 (28.8)       | X <sup>2</sup> = 5.578 | 0.218            |
|  | 2  | 42 (37.2)         | 25 (41.0)     | 17 (32.7)       |                        |                  |
|  | 3  | 23 (20.4)         | 10 (16.4)     | 13 (25.0)       |                        |                  |
|  | 4  | 13 (11.5)         | 9 (14.8)      | 4 (7.7)         |                        |                  |
|  | ≥ 5  | 10 (8.9)          | 7 (11.5)      | 3 (5.7)         |                        |                  |
| Length of employment (months), Fr (%)      | <6   | 47 (41.6)         | 26 (42.6)     | 21 (40.4)       | X <sup>2</sup> = 5.234 | 0.264            |
|  | 6–12   | 34 (30.1)         | 22 (36.1)     | 12 (23.1)       |                        |                  |
|  | 12–24 s  | 9 (8.0)           | 5 (8.2)       | 4 (7.7)         |                        |                  |
|  | >24  | 23 (20.4)         | 8 (13.1)      | 15 (28.8)       |                        |                  |

Significant values in bold letters.

Table 2  
SF-12 and CISS scores: comparison between genders

|       |                    | Sample<br>N = 113 |      | Male<br>N = 61 |      | Female<br>N = 52 |      | Independent<br>samples <i>t</i> -Test |          |
|-------|--------------------|-------------------|------|----------------|------|------------------|------|---------------------------------------|----------|
|       |                    | Mean              | SD   | Mean           | SD   | Mean             | SD   | <i>t</i>                              | <i>P</i> |
| SF-12 | PCS                | 49.0              | 9.5  | 47.9           | 10.0 | 50.3             | 8.8  | -1.373                                | 0.172    |
|       | MCS                | 39.7              | 11.8 | 39.0           | 11.4 | 40.6             | 12.4 | -0.715                                | 0.476    |
| CISS  | Task Oriented      | 55.1              | 9.2  | 54.3           | 9.7  | 56.1             | 8.6  | -1.043                                | 0.299    |
|       | Emotion Oriented   | 49.9              | 11.5 | 50.5           | 11.5 | 49.3             | 11.7 | 0.559                                 | 0.577    |
|       | Avoidance Oriented | 51.2              | 9.9  | 51.5           | 9.4  | 50.9             | 10.6 | 0.338                                 | 0.736    |
|       | • Social AO        | 17.7              | 4.1  | 17.6           | 4.0  | 17.8             | 4.3  | -0.215                                | 0.830    |
|       | • Distraction AO   | 23.9              | 6.1  | 23.8           | 4.9  | 24.0             | 7.3  | -0.151                                | 0.881    |

Significant values in bold letters.

Table 3  
Multiple Linear Regression

| Model summary  | Independent variables          | B      | Std. Error | <i>p</i>     |
|--|--------------------------------|--------|------------|--------------|
| Model 1. Outcome: PCS <sup>a</sup><br>R <sup>2</sup> = 0.218; F = 8.791; <i>p</i> < 0.001  | Age                            | -0.380 | 0.085      | <b>0.000</b> |
|  | CISS-TO                        | 0.202  | 0.089      | <b>0.026</b> |
|  | CISS-EO                        | -0.139 | 0.072      | 0.055        |
|  | Gender                         | 2.858  | 1.604      | 0.078        |
| Model 2. Outcome: MCS <sup>a</sup><br>R <sup>2</sup> = 0.302; F = 17.145; <i>p</i> < 0.001 | CISS-EO                        | -0.503 | 0.082      | <b>0.000</b> |
|  | Age                            | -0.228 | 0.098      | <b>0.021</b> |
|  | Number different previous jobs | -1.512 | 0.771      | 0.052        |

Significant values in bold letters. <sup>a</sup>Dependent variable.

single, still lived with parents, or were married and lived with their own family (33%); most participants had graduated from high school (60%). In reference to their occupational history, salaried employees (54%) were over-represented although a high proportion of women had worked as domestic assistants formerly; only 21% of those surveyed had more than three different previous positions. The average length of unemployment was less than 6 months for 42% of participants, while about 20% of respondents were unemployed for at least two years.

Table 2 illustrates CISS and SF-12 mean values and the comparison between men's and women's responses. No significant differences were found between the average scores of men and women on either measure. The paired sample *t*-Test (not in table) showed higher physical than mental health status both for men (PCS = 47.89 ± 10.0; MCS = 39.0 ± 11.4; *t* = 5.778; *p* < 0.0001) and women (PCS = 50.3 ± 8.8; MCS = 40.6 ± 12.4; *t* = 4.392; *p* < 0.0001). When these results were compared with the Italian normative data by gender, both men and women showed significantly lower perceived physical (PCS men comparison: *t* = 6.596; *p* < 0.0001; PCS women comparison: *t* = 2.493; *p* = 0.013) and mental (MCS men comparison: *t* = 12.507; *p* < 0.0001; MCS women comparison: *t* = 8.253; *p* < 0.0001) health status than members of the normative group.

Furthermore, the comparison of CISS scores through paired sample *t*-Tests showed that men had similar scores of TO, EO and AO coping; while women showed higher scores of TO than EO (*t* = 2.959; *p* = 0.005) and AO coping (*t* = 3.038; *p* = 0.004).

To compare coping strategies and predict the perceived health status, two different models of Linear Regression Analysis were carried out (Table 3). In the first model, high Task Oriented coping and age were independent predictors of PCS. Similarly in the second model, MCS was associated with age, lower Emotion Oriented coping and fewer previous jobs.

#### 4. Discussion

The aim of this study was to determine whether specific coping strategies and socio-demographic variables were reported by the unemployed participants in this sample. Results showed that the health status of these participants was significantly different from the normative data on both measures. Similar to the findings from previous studies, participants also showed lower levels of perceived mental health compared to perceived physical health [23]. Present results show that the perception of physical or mental health are not associated with either marital status or living arrangement, nor does it seem to depend on the level of education or even less

by the length of unemployment: these factors would not, therefore, be able to predict the level of perceived physical or mental health.

Although small, the sample was homogeneous and socio-demographic variables did not differ significantly for men and women. On the other hand it is difficult to make any kind of inference to explain if people who did not agree to participate had either different coping strategies or a different perception of their health status, but it can be inferred that those who agreed to participate were more eager to express the complexity of their condition.

Research results differ regarding gender differences: some studies have demonstrated that unemployment has a greater effect on men's than on women's mental health [24, 25] while others argue the opposite [4, 26]. In the present study gender was not associated with the perceived health status reported by participants, but it was lower than that of the normative sample in both genders.

Leana & Feldman [27] examined differences between men and women in how they perceived, coped with, and reacted to job loss. Their results did not show any significant differences in psychological and behavioral distress symptoms. There were differences however in how each group coped with their job loss: men relied more on problem-focused strategies while women relied more on symptom-focused strategies. According to Endler and Parker [28], assuming that Task-Oriented coping is similar to problem-focus strategies while Emotion-Oriented coping is similar to symptom focused strategies, the results of the present study showed no significant differences in CISS scores for men and women, but there was a slightly higher tendency towards task-oriented coping among women (also not significant) in this study.

Results of the regression analysis showed that specific TO coping strategies were strongly associated to higher PCS and conversely that EO coping was inversely related to MCS. Chen et al. [2] have demonstrated that problem-solving was the most common coping strategy among Chinese unemployed migrant workers. Better perceptions of physical health status were associated with task-oriented coping which is considered to be a mature strategy of altering or managing stress levels [2]. On the other hand a meta-analysis by McKee-Ryan et al. [19] showed that TO or EO coping strategies were associated with higher levels of mental health among unemployed participants: higher well-being was found among those who sought to manage their stress directly through problem-focused coping and indirectly through emotion-focused coping. Results from the present study showed that lower perceptions

of mental health were associated with higher use of emotion-oriented coping strategies.

In addition to coping strategies, age seemed to play a key role in the perception of physical and mental health as a predictor of PCS. As expected, younger people had a better perception of their physical health although previous studies have shown that unemployment in younger age participants was related to poorer quality of life [29] and to mental health throughout life. For this reason unemployment can be considered a risk factor for developing mental illness and youth suicide [30]. In addition, two other factors in the present study positively influenced the perceived mental health status: fewer job changes tended to be associated with lower emotion-oriented coping levels. Frequently changing jobs may be related to a greater number of dismissals. Participants reporting higher levels of emotion coping strategies view their mental health as poorer given the stress they attributed to their unemployment.

## 5. Conclusion

Some methodological issues need to be addressed prior to proceeding with the conclusions. The limitations of this study consist of the small sample size and the collection of data limited to a single month of the year. However the sample can be considered representative of the population of this specific area in Southern Italy, the poorest region of the country and one with the highest unemployment rate [31] who wanted to share their situation with the researchers, since the study involved all subjects who sought work at this employment center during that period. In addition, it is true that the survey was carried out in a single month of the year, but this month was chosen because the highest number of work requests are observed after the run out of the summer seasonal.

The perception of health status is reduced among unemployed. Age is the only socio-demographic variable that influences the perception of both physical and mental health status. Adaptive Task-oriented coping strategies are related to better physical health perception, whereas Emotion-oriented coping are related to poorer mental health perception.

Further research should test a larger number of unemployed people over the whole year and consider the changes in the perception of health status among those who have found work.

These results highlight the effects coping strategies on perceived health status related to job loss; as a

practical application, it would be advisable to combine psychological assistance with job searching assistance for those unemployed who may need it.

### Conflict of interest

The authors report no conflicts of interest in this work.

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