

LONGITUDINAL STUDIES ON THE HOMELESS IN SPAIN. RESULTS

Spanish shortpaper – Copenhagen

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INTRODUCTION	2
STUDY 1.....	2
RESULTS.....	2
(a) Characteristics of the follow-up group at the beginning and at follow-up.....	2
(b) Differences at Time 1 between the homeless follow-up group and the housed follow-up group	4
(c) Differences at Time 2 between the homeless follow-up group and the housed follow-up group.	6
(d) Results of the discriminant analyses.	7
Discriminant analysis with the data from Time 1.....	8
Discriminant analysis with the data at Time 2.....	9
DISCUSSION.....	9
STUDY 2.....	10
RESULTS	10
(a) Housing situation.....	11
(b) Economic situation.....	12
(c) Work situation.....	12
(d) Health status	13
(e) Subjective aspects	14
Satisfaction with various aspects of their lives.	14
Perception of change	14
DISCUSSION.....	16

INTRODUCTION

The aim of this article is to present some of the results obtained in the longitudinal works carried out in Spain with the homeless population. This article is a complement to the long paper that will be presented in the 3rd meeting of the CUPH network, at which the methodology of the only two longitudinal studies on the homeless population in Spain will be presented, as well as the chief follow-up aspects. Therefore, to avoid duplicating the information, in this paper we will only present the main results found in both studies, but the more technical aspects will not be commented on.

STUDY 1.

Below are presented some results from the study directed by Carmelo Vázquez and Manuel Muñoz, entitled *Differentiating psychological, social, and economic characteristics of persons who are vulnerable to homelessness: Longitudinal analysis of high-risk samples* (CAM 7250-97), about the changes over time in the study participants' situation.

In this investigation, a random and representative sample of homeless persons in Madrid was interviewed, and a follow-up was performed to determine their psychosocial evolution over a 16-month interval. One of the main purposes of this study was to analyze the changes occurring over time in the study participants, with special attention to changes in their homelessness.

RESULTS.

(a) Characteristics of the follow-up group at the beginning and at follow-up.

A total of 78 persons (27% of the original sample of homeless persons interviewed) participated in the follow-up interview, which took place after a mean interval of 16 months. Table 1 describes the main sociodemographic characteristics of the follow-up group at the beginning. As mentioned in the long paper that complements this article, the statistical analyses revealed some demographic differences between the initial group of homeless persons ($n = 289$) and the follow-up group ($n = 78$). In both cases, they were mainly single men, of Spanish nationality, with long-term homelessness histories. But the mean age of the people who participated in the follow-up interview was significantly higher and they had experienced their first homelessness episode at a significantly later age, in comparison with the total sample of homeless people. These demographic differences may limit the representativeness and generalization of the results of the follow-up group and should be taken into account when considering the results presented below, because their evolution during the follow-up interval may be conditioned by these participants' particular characteristics.

Table 1. Demographic characteristics of the follow-up group at the beginning.

	Follow-up Group (<i>n</i> = 78)	
	%	<i>n</i>
Men	91	70
Mean age (SD)	45.7 (12.6)	78
Place of birth		
Spain	84	62
Africa	1	1
Latin America	3	2
Eastern Europe	7	5
Others	5	4
Civil Status		
Single	61	47
Married	0	0
Separated/ Divorced	31	24
Widowed	8	6
Educational level		
No studies	19	15
First grade	13	10
Second grade	53	40
Third grade	15	12
Mean age at first homeless episode (SD)	36.8 (14.19)	75
Total mean time of homelessness in months (SD)	71.2 (78.59)	73

Table 2 displays the information about the work and economic situation, health status, and social support of the follow-up group at each measurement time. It can be observed that both the formal and informal rate of economic activity and the receipt of official economic subsidies had increased at the follow-up interview as compared with the initial interview. Similarly, indicators of physical and mental health had improved over time. Regarding social support, the number of persons who expressed feelings of abandonment or loneliness tended to decrease, as did the receipt of financial support by family members or friends during follow-up.

Table 2. Economic situation, health status, and social support characteristics of the follow-up group (*n* = 78).

	Initial interview		Follow-up interview	
	%	<i>n</i>	%	<i>n</i>
Employment and economic resources	21.0	16	41.0	32
Is employed				
Receives official subsidies	41.0	32	60.5	46
Performed informal economic activities in the past week	18.2	14	20.8	16
Health Status				
Positive on GHQ ¹	76.4	55	61.5	48
Alcohol dependence on CAGE	29.9	23	16.9	13
Physical or sensory disability	72.4	55	61.5	48
Admission at psychiatric hospital	14.5	11	7.9	6
Social support				
Feelings of abandonment / loneliness				

<i>None</i>	33.3	25	49.4	38
<i>Not much</i>	16.0	12	10.4	8
<i>Some</i>	13.3	10	26.0	20
<i>A lot</i>	37.3	28	14.3	11
Received money regularly from family /friends	20.8	16	14.1	11

¹ *General Health Questionnaire.*

² *CAGE Alcohol Interview Schedule.*

* $p \leq .05$. ** $p \leq .01$.

(b) Differences at Time 1 between the homeless follow-up group and the housed follow-up group

One of the main purposes of this study was to trace the mobility profile of the people from the homeless population and the changes in their situation over time, with special attention to aspects related to achieving or failing to achieve a stable home during the follow-up interval. As some of the initially homeless persons had achieved adequate housing at follow-up, the following goals were set:

- a) To determine whether there was already a differential profile at the initial interview that would allow us to predict the subsequent residential status (longitudinal retrospective analysis).
- b) To analyze at follow-up the variables that discriminated the housed follow-up group from the homeless follow-up group.

In the follow-up interview, 53 persons (68% of the follow-up group) were still habitually sleeping in shelters or on the street and they were defined as the *Homeless Follow-up Group (HL)*, whereas 25 persons had adequate housing and made up the *Housed Follow-up Group (H)*.

In order to determine whether there were differences between these two groups at the beginning, some statistical contrast tests were performed in several areas of interest. The comparison of the sociodemographic data from the first interview showed that the groups were not significantly different in the variables of gender, age, place of birth, and civil status (Table 3). However, in the HL follow-up group, there were more people with low educational and professional level. In addition, the total duration of homelessness, the duration of the current homelessness episode, and the duration of unemployment were significantly higher in the group that was still homeless at follow-up.

Table 3. Comparison at Time 1 between the homeless follow-up group (HL) and the housed follow-up group (H). Sociodemographic characteristics.

	HL Follow-up Group (<i>n</i> = 53)		CH Follow-up Group (<i>n</i> = 25)		Value of Statistic
	%	<i>n</i>	%	<i>n</i>	
Men	87	46	96	24	1.565 (3)
Mean age (SD)	46.4 (12.10)	53	44.4 (13.75)	25	0.639 (1)
Mean age at 1st homelessness episode (SD)	37.1 (12.52)	51	36.3 (17.40)	25	0.226 (1)
Place of birth					4.150 (3)
Spain	79	38	96	23	
Africa	2	1	0	0	

Latin America	4	2	0	0	
Eastern Europe	6	3	4	1	
Others	8	4	0	0	
Civil Status					1.285 (3)
Single	61	32	64	16	
Married	0	0	0	0	
Separated/ Divorced	33	17	24	6	
Widowed	6	3	12	3	1.938** (3)
Educational level					
No studies	24	13	8	2	
First grade	19	10	0	0	
Second grade	40	21	79	19	
Third grade	17	9	13	3	
Total months homelessness (Median)	<i>Mdn</i> = 49.79	51	<i>Mdn</i> = 18.00	23	-2.357* (2)
Duration of current homelessness episode over 12 months	62	33	36	9	4.715* (3)
Main work activity					4.663* (3)
Qualified employment	27	14	52	13	
Unqualified employment	73	38	48	12	
Time unemployed more than 2 years	90	38	59	13	8.786* (3)

Notes: Student's *t* tests were performed on the normal continuous variables (1), Mann-Whitney's *U* tests on the nonnormal continuous variables (2), and χ^2 on the categorical variables (3).

* $p \leq .05$. ** $p \leq .01$.

Subsequently, the data corresponding to the areas of employment and economic resources (see Table 4) were analyzed. The HL follow-up group initially presented a higher percentage of persons who had formal and informal jobs, and also a higher percentage of persons who were receiving official economic subsidies, whereas the people from the CH follow-up group had received more financial help from family members or friends. However, the differences between the groups were not statistically significant in any of the economic indicators at Time 1.

With regard to physical and mental health status, no initial significant group differences were found (Table 4). In both groups, there were a large number of positive cases in the General Health Questionnaire, which reflects more psychopathology and probably more deterioration in most of the participants' functioning. Similarly, there were an important number of cases of alcohol dependence and a considerable percentage of disabilities.

Table 4. Comparison at Time 1 of the homeless follow-up group (HL) and the housed follow-up group (H). Economic and health status characteristics.

	HL Follow-up Group (<i>n</i> = 53)		H Follow-up Group (<i>n</i> = 25)		χ^2
	%	<i>n</i>	%	<i>n</i>	
Employment and economic resources					
Is employed	25.0	13	12.5	3	1.554
Receives official subsidy	43.4	23	36.0	9	0.384
Received money regularly from family/friends	17.0	9	29.2	7	1.490
Performed informal economic activity in the past week	23.1	12	8.0	2	2.580
Health Status					

Positive case on GHQ ¹	77.6	38	73.9	17	1.554
Alcohol dependence on CAGE ²	30.8	16	28.0	7	0.384
Physical or sensory disability	26.9	14	29.2	7	1.490
Admitted at psychiatric hospital	11.8	6	20.0	5	2.580

¹ General Health Questionnaire.

² CAGE Alcohol Interview Schedule.

* $p \leq .05$. ** $p \leq .01$.

(c) Differences at Time 2 between the homeless follow-up group and the housed follow-up group.

Group comparisons were made of the data corresponding to the follow-up interview (see Table 5). In general, at Time 2, the H follow-up group's economic and health status was more favorable than that of the HL follow-up group, and some of these differences were statistically significant. Specifically, in the time interval between both interviews, a significantly higher number of people from the H follow-up group had received money regularly from family and friends. On the other hand, 25% of the HL follow-up group still showed alcohol dependence at the second interview, whereas this number dropped to zero in the H follow-up group.

Table 5. Comparison at Time 2 of the homeless follow-up group (HL) and the housed follow-up group (H). Economic and health status characteristics.

	HL Follow-up Group ($n = 53$)		H Follow-up Group ($n = 25$)		χ ²
	%	n	%	n	
Employment and economic resources					
Is employed	39.6	21	44.0	11	0.135
Receives official subsidy	59.6	31	62.5	15	0.057
Received money regularly from family/friends	3.8	2	36.0	9	4.564***
Performed informal economic activity in the past week	17.1	9	29.9	7	1.490
Health Status					
Positive case on GHQ ¹	62.3	33	60.0	33	0.037
Alcohol dependence on CAGE ²	25.0	13	0	0	7.520**
Physical or sensory disability	34.6	18	24.8	18	0.791
Admitted at psychiatric hospital	7.7	4	8.3	4	0.009

¹ General Health Questionnaire.

² CAGE Alcohol Interview Schedule.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

The evolution of each group during follow-up revealed other interesting differences. The participation of the H follow-up group in psychosocial rehabilitation programs at follow-up was significantly higher than that of the group that was still homeless (see Table 6). In addition, attendance at work integration courses and professional training courses was also more frequent in the H group, almost reaching statistical significance.

Table 6. Comparison at Time 2 of the homeless follow-up group (HL) and the housed follow-up group (H). Use of community services during follow-up.

	HL Follow-up Group (<i>n</i> = 53)		H Follow-up Group (<i>n</i> = 25)		χ^2
	%	<i>n</i>	%	<i>n</i>	
Use of shelters	55.8	29	36.0	9	2.640
Use of soup kitchens	78.8	41	40.0	10	11.392**
Use of clothing donation centers	75.5	40	52.0	13	4.297*
Attendance at psychosocial rehabilitation programs	12.0	6	60.0	15	7.786**
Attendance at work integration courses	3.8	2	16.0	4	3.471
Attendance at professional training courses	11.3	6	28.0	7	3.103

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

(d) Results of the discriminant analyses.

After performing the descriptive and univariate analyses, we decided to apply the technique of discriminant analysis to evaluate the multivariate profile group differences. Discriminant analysis is useful when one wishes to elaborate a predictive model to forecast in which group a case will fall depending on the observed characteristics of each case. The procedure generates a discriminant function based on the linear combinations of the predictor variables that provide the best possible discrimination between the groups.

The following goals were set:

1. To determine whether there was already a differential profile at the initial interview that would allow us to predict the subsequent residential status.
2. To determine whether certain circumstances regarding the follow-up interval would discriminate both groups.

Thus, two discriminant analyses were performed, one on the variables of the initial interview and the other on variables from the follow-up interview. The step-wise inclusion method with Wilks' lambda procedure was used, which introduces at each step the variable that minimizes the global value of lambda. We maintained the preestablished *F* values, with a minimum partial *F* value of 3.84 to be entered and a maximum partial *F* value of 2.71 to be excluded. A priori probabilities to enter the function were fixed according to the size of each group. The dependent variable was defined as *Residential situation at follow-up*, with two values (0 = homeless, 1 = housed).

Theoretical interest and the results of the univariate analyses guided our selection of independent variables, given that the technique of discriminant analysis is fairly sensitive to the ratio between sample size and the number of predictor variables. For the first discriminant analysis, corresponding to the data of the initial interview, the following independent variables were chosen:

- *Duration of the current homelessness episode of more than 12 months* (0 = No, 1 = Yes).
- *Educational level* (1 = No studies, 2 = First grade, 3 = Second grade, 4 = Third grade).
- *History of qualified employment* (0 = No, 1 = Yes).

- *Time unemployed for more than two years* (0 = No, 1 = Yes).
- *Existence of just one homelessness episode* (0 = No, 1 = Yes).
- *Age at first homelessness experience* (continuous variable).

The following independent variables were selected for the discriminant analysis with data from the follow-up interview:

- *Participation in social rehabilitation programs during follow-up* (0 = No, 1 = Yes).
- *Receipt of formal and/or informal economic aid during follow-up* (0 = No, 1 = Yes).
- *Number of symptoms of alcohol dependence on the CAGE* (continuous variable).

Other interesting variables, such as *Total duration of homelessness* or *Attendance at training courses during follow-up*, were excluded because they did not comply with some discriminant analysis assumption (in this case, high correlations with other variables already included in the analysis).

Discriminant analysis with the data from Time 1.

Table 7 displays the structure matrix obtained from the first discriminant analysis. The combination of three of the six independent variables provides the best discrimination between the H follow-up group and the HL follow-up group: *Duration of the current homelessness episode*, *Time elapsed since last formal employment* and *Level of professional qualification*. The inclusion of the other variables (*Educational level*, *Existence of just one homelessness episode*, *Age at first homelessness experience*) did not contribute significantly to the discrimination between the groups and, therefore, they were not entered into the discriminant function.

Table 7. Structure matrix of the discriminant function of the variables at Time 1.

<i>Variable</i>	<i>r</i>
Time unemployed for more than two years	.653
Duration of the current homelessness episode of more than 12 months	.644
History of qualified employment	-.454
^a Educational level	-.292
^a Existence of just one homelessness episode	-.070
^a Age at first homelessness experience	.048

Note: Variables arranged according to magnitude of correlation with the function.

^a Variable not entered in the analysis.

The standardized coefficients (see Table 8) show the sign and magnitude assigned to each of the three variables included in the discriminant function, whose Wilks' lambda value was .731 ($p < .001$). This function correctly classified 79.0% of all the original cases, an amount that surpasses the maximum randomness criterion of 63.5% (random classification based on the sample size of the largest group). A total of 88.4% of the homeless follow-up group and 61.9% of the housed follow-up group were assigned to the correct group. If we consider the criterion of classification precision suggested by some authors –one fourth higher than that obtained by randomness– (Hair, Anderson, Tatham, & Block, 1999), we observe that this criterion is only met when classifying the members of the HL follow-up group.

Table 8. Standardized coefficients of the canonical discriminant function of the variables at Time 1.

<i>Variable</i>	<i>Coefficient</i>
Duration of the current homeless episode of more than 12 months	.645
Time unemployed for more than two years	.541
History of qualified employment	-.510

Discriminant analysis with the data at Time 2.

The second discriminant analysis included the variables concerning the follow-up period. The structure matrix obtained is presented in Table 9. The combination of two of the variables, *Participation in psychosocial rehabilitation programs during follow-up* and *Number of symptoms of alcohol dependence on the CAGE*, allowed us to discriminate the residential result at follow-up. The variable *Receipt of economic aid during follow-up* did not contribute significantly to the discriminant function between the H follow-up group and the HL follow-up group.

Table 9. Structure matrix of the discriminant function of the variables at Time 2.

<i>Variable</i>	<i>r</i>
Participation in psychosocial rehabilitation programs during follow-up	.678
Number of symptoms of alcohol dependence on the CAGE	-.640
^a Receipt of economic aid during follow-up	.256

Note: Variables arranged according to the magnitude of the correlation with the function.

^a Variable not entered in the analysis.

Table 10 displays the standardized coefficients of the discriminant function obtained, whose Wilks' lambda value was .785 ($p < .001$). The function adequately classified 76.6% of all the original cases. As with the first discriminant analysis, it allowed us to accurately classify the persons who were still homeless (94% of the HS follow-up group was correctly assigned to this group), but it did not help us to identify the persons who achieved housing (it only classified 40.7% of the H follow-up group correctly, less than the percentage that would be obtained randomly).

Table 10. Standardized coefficients of the canonical discriminant function of variables at Time 2.

<i>Variable</i>	<i>Coefficient</i>
Participation in psychosocial rehabilitation programs during follow-up	.775
Number of symptoms of alcohol dependence at follow-up	-.741

DISCUSSION.

Traditionally, the conditions that precede onset of homelessness and, to a lesser extent, the circumstances related with its conclusion, have received much attention. This is partly because of the challenge of a prolonged follow-up of persons with no stable residence. As mentioned, one of the main purposes of this study was to achieve a longitudinal approach to the homeless group with the aim of analyzing the changes occurring over time in the participants' homelessness.

Comparison of the follow-up group of people who achieved adequate housing and the group of persons who were still homeless revealed some interesting aspects. The results show that both groups were similar in the main demographic variables.

However, the persons from the H follow-up group set out from a more advantageous personal history. On the one hand, they had a higher educational level and a more qualified work history, two factors related to an individual's human capital and which, although they have not always been decisive to predict concluding the homeless situation (Zlotnick et al., 1999), seem to be related to better residential results in follow-up studies (Craig & Hodson, 2000; Piliavin et al., 1996).

On the other hand, the H follow-up group presented a less chronic initial exclusion situation: their homelessness histories were briefer, they had spent less time in the current homeless situation, and had also been unemployed for shorter periods of time. Some authors have indicated that the probability of obtaining satisfactory housing is related to less severe homelessness histories (Craig & Hodson, 2000; Piliavin et al., 1996), and that homelessness experiences of less than one year considerably increase the possibilities of terminating that situation (Cohen et al., 1997; Zlotnick et al., 1999).

The aim of evaluating the differences of multivariate profiles was to find the combination of variables that would provide the best possible discrimination between groups. The discriminant functions obtained explain in a limited way the residential result during follow-up and are chiefly useful to classify the members of the follow-up group that remain homeless. Certain circumstances are very characteristic of this group: initially, they presented longer homeless episodes, prolonged unemployment, and not very qualified work histories, and, at follow-up, they were observed to have participated less in psychosocial rehabilitation programs, and to have more alcohol-dependence-related symptoms. However, the opposite circumstances do not predict the achievement of adequate housing at follow-up with sufficient precision. Bringing the homeless situation to an end is a very complex phenomenon and the erroneous classifications suggest the existence of other characteristics not taken into account in this study, which might explain these differences.

Therefore, the results suggest the relevance of taking action in the initial stages of homelessness because, to a great extent, prolonged periods of homelessness, long-term unemployment, and the absence of psychosocial interventions prevent the return to a normalized situation.

STUDY 2.

The following longitudinal study that was performed in Spain with the homeless population was entitled: *Viability and effectiveness of the programs to combat social exclusion: psychosocial components, training, employment, and housing*. It was financed by the National Plan of I+D+I (2000-2003) and directed by Dr. Manuel Muñoz and Dr. Maria Fe Bravo. The chief goal of this study was to determine the effects of a series of programs, essentially aimed at attending homeless people, and considered "good practices" by experts. The goal was to observe the changes in the situation of the users' of these programs over one year, starting at the first data collection, at two different times: at 6 and at 12 months.

RESULTS

The results of this study are still in the elaboration phase and have not been published yet. In this paper, we will briefly present some results of the variables that

were considered more relevant: housing situation, economic situation, work situation, health status, satisfaction with various aspects of life, and perception of change.

In this study, there were 130 participants, users of 11 programs aimed chiefly at the homeless population; 55 (42.3%) of them participated in the first follow-up (at 6 months) and the same number at the second follow-up (at 12 months). A total of 43 persons underwent the two follow-up interviews, that is, 33.1% of the initial participants.

As mentioned in the long paper, before performing any comparative analysis of the different measuring times, various analyses were performed to compare in several variables the persons who had participated in the follow-ups with those who had not been re-interviewed, in order to guarantee the equivalence of both subgroups. The results indicate the representativeness of the follow-up group with regard to the total sample of participants, as no significant differences were found between the persons who participated in the follow-up and those who did not, in the variables analyzed: gender, age, nationality, civil status, and educational level.

As can be observed below, the results compare in all cases the situation in the variables at Time 1 assessment with each of the follow-ups. Because of the loss of cases that would be involved, no simultaneous analysis of all three times is presented.

(a) Housing situation

Although not all the participants in this study were homeless in the month preceding their participation in the study, it is evident that the housing situation was very precarious in a large part of the sample. As can be seen in Table 11 (Time 1 [T1]), practically all of the participants had, at some time throughout their life, been homeless (that is, they had slept out on the street, in a shelter, or in an abandoned building, car, or similar), and in 45% of the cases, on more than one occasion. The mean duration of homelessness was over 4 years. In the past month, 60% of the participants had been in this situation, although this number reaches 85.4% (11 persons) if we take into account those people who were accommodated in other housing resources, different from shelters, aimed at persons who do not have a adequate place to live: rooms in supervised pensions, mini-boarded houses, protected flats, etc.

Table 11. Homeless history at Time 1.

	T1	
		n
Have you ever been homeless for at least one night?	99.2%	129
Throughout your life, how often have you been homeless?		
Once	55.4%	72
From 1 to 5 times	31.5%	41
More than 5 times	11.5%	15
No reply	1.5%	2
Mean homeless time in months (SD)	54.33 (71.93)	120

As can be observed in Table 12, the housing situation was still precarious at 6 months (Follow-up 1 [F1]) and at 12 months (Follow-up 2 [F2]) after the first data collection, but the percentage of homeless persons had decreased considerably: The initial 60% dropped to 38.5% and 34.5% of homeless persons at 6 and 12 months, respectively, although this decrease only became significant at 12 months. The stability

of the housing situation of these people also increased, reaching 85.5% and 90%, at 6 and 12 months, respectively, although again, it was only significant at 12 months.

Table 12. Housing situation at Time 1 and at Follow-ups 1 (6 months) and 2 (12 months)

	T1		F1		F2		T1 – F1	T1 – F2
	%	n	%	n	%	n	Significance(a)	Significance(a)
Did you sleep outdoors in the past month?	26.2	34	16.4	9	16.4	9	.289(b)	1.000(b)
In the past month, did you sleep in an empty building or similar?	15.4	20	3.6	2	5.5	3	.625(b)	1.000(b)
In the past month, did you sleep in a public shelter?	45.4	59	27.3	15	29.1	16	.146(b)	.454(b)
In the last month, did you sleep out on the street, in a shelter, or in an empty building, or similar?	60.0	78	38.2	21	34.5	19	.227(b)	.049(b)*
Do you currently have a regular place to live?	67.7	88	85.5	47	90.9	50	.727(b)	.021(b)*

(a) McNemar's test of significance is presented.

(b) Binomial distribution was used.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

(b) Economic situation

As displayed in Table 13, the mean monthly income of the participants in this study was initially around 260 euros, that is, approximately the amount of the Madrid Integration Income (currently, the Minimum Insertion Income), and with a mean of less than 120 euros per month for personal expenses. As can be seen below, both the mean monthly income and the money for personal expenses increased both at 6 and 12 months, although the differences in available monthly money were only significant for money for personal expenses.

Table 13. Economic situation at Time 1 and at Follow-ups 1 and 2.

	T1		F1		F2		T1 – F1	T1 – F2
	<i>M</i>	<i>n</i>	<i>M</i>	<i>n</i>	<i>M</i>	<i>n</i>	<i>t</i>	<i>t</i>
Mean monthly income in euros (SD)	263.64 (201.5)	127	349.20 (323.86)	55	356.29 (231.15)	52	-1.493	-1.770
Money for personal expenses not counting money for housing and food (SD)	119.27 (163.68)	121	173.91 (171.08)	55	191.02 (201.29)	50	-2.099*	-2.432*

(a) McNemar's test of significance is presented.

(b) Binomial distribution was used.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

(c) Work situation

Regarding work situation, which is fairly related to the economic situation, the data also provide information about the participants' precarious situation at the beginning of the study, as well as during the interval in which the study took place. Over 70% of the participants were not working at the time of the first interview, nor had they worked the preceding month, and more than one half of them had been unemployed for over a year. Mean unemployment duration was also very high, around 5 years. The percentage of unemployment decreased slightly over time, although this decrease did not reach significance in either of the groups.

Table 14. Work situation of participants at Time 1 and at Follow-ups 1 and 2.

	T1		F1		F2		T1 – F1	T1 – F2
	n	%	n	%	n	Significance (a)	Significance (a)	
Have you worked the past month?								
Are you working now?						0.344(b)	0.453(b)	
Is not working currently and did not work in the past month.	71.5%	93	67.3	37	65.5	36		
Is currently working or worked in the past month.	28.5%	37	32.7	18	34.5	19		
Time unemployed								
Less than 1 year	42.2%	38	-	-	-	-		
Between 1 and 2 years	14.7%	15	-	-	-	-		
More than 2 years	43.1%	77	-	-	-	-		
Mean time unemployed in months (SD)	61.52 (94.09)	102	-	-	-	-		

(a) McNemar's test of significance is presented.

(b) Binomial distribution was used.

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

(d) Health status

One way to collect information about health used in this study is by means of the General Health Questionnaire (GHQ-28; Goldberg, 1996), which provides information about people's general health status, focusing on the deterioration of individuals' normal functioning, rather than on the traits present throughout their life. In this case, we used the 28-item version that provides partial scores in 4 subscales: somatic symptoms, anxiety and insomnia, social dysfunction, and depression. These scales do not correspond to psychiatric diagnoses, but represent instead dimensions of symptomatology. In this case, higher scores reveal the presence of more symptomatology and a higher probability of being a "psychiatric case."

In this case, the results seem to show some improvement over time in various health aspects, with decreases both in the total score and in some of the subscale scores. The most consistent improvement was in the total score, which improved both at the 6-month and the 12-month follow-ups, with the latter improvement being more pronounced (more than two points lower than at the initial evaluation).

Table 15. Health situation at Time 1 and at Follow-ups 1 and 2. Data from the GHQ.

	T1		F1		F2		T1 – F1	T1 – F2
	n	M (SD)	n	M (SD)	n	M (SD)	t	t
Mean Nr. of positives on Somatic Symptom subscale (1-7)	128	1.80 (1.94)	53	1.11 (1.48)	54	1.20 (1.52)	2.099*	1.773
Mean Nr. of positives on Anxiety and Insomnia subscale (1-7)	128	2.20 (2.16)	54	1.72 (1.97)	53	1.23 (1.53)	1.286	2.151*
Mean Nr. of positives on Social Dysfunction subscale (1-7)	116	1.13 (1.56)	51	.55 (1.04)	48	.65 (1.26)	2.305*	1.644
Mean Nr. of positives on Depression subscale (1-7)	126	1.13 (1.86)	52	.83 (1.77)	52	.86 (1.87)	1.873	2.404*
Total mean Nr. of positives on GHQ (1-28)	114	6.39 (5.78)	48	4.56 (5.211)	46	4.20 (5.08)	2.143*	2.527*

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

(e) Subjective aspects

In addition to considering the above-mentioned variables, we included subjective aspects, such as users' satisfaction with various aspects of their lives and their own perception of the changes in their lives since joining the program, which somehow complement the information collected about these and other variables.

Satisfaction with various aspects of their lives.

Participants' satisfaction with various aspects of their lives was assessed with an analogical visual (to facilitate comprehension) 7-point Likert-type scale (1 = lowest degree of satisfaction, 7 = highest degree of satisfaction). As can be seen in Table 16, at first, the lowest satisfaction corresponded to aspects related to the economic situation (2.23). These people expressed the highest degree of satisfaction with their social life and health status. At the 6-month and 12-month follow-ups, a general tendency towards improvement was observed in all areas, except, strangely enough, in health, which decreased slightly, although without reaching statistical significance. Satisfaction with family relations improved significantly at 6 months, and, at 12 months, improvement in satisfaction with life in general and with leisure was also significant.

Table 16. Participants' satisfaction with various aspects of their lives at Time 1 and at Follow-ups 1 and 2.

	T1		F1		F2		T1-F1	T1-F2
	<i>n</i>	<i>M</i> (<i>SD</i>)	<i>n</i>	<i>M</i> (<i>SD</i>)	<i>n</i>	<i>M</i> (<i>SD</i>)	<i>t</i>	<i>t</i>
Satisfaction with life in general (1-7)	129	3.52 (1.95)	53	4.31 (1.95)	54	4.52 (1.80)	- 1.862	-3.623**
Satisfaction with housing (1-7)	128	3.92 (1.81)	54	4.67 (1.63)	54	4.44 (1.69)	- 0.983	-0.784
Satisfaction with leisure (1-7)	122	3.82 (1.51)	52	3.93 (1.54)	53	4.07 (2.12)	0.438	-2.56*
Satisfaction with family relations (1-7)	118	3.38 (2.28)	48	4.11 (2.37)	52	3.97 (1.42)	-2.421*	-0.331
Satisfaction with social life (1-7)	119	4.86 (1.63)	51	4.76 (1.59)	48	5.02 (1.17)	0.224	-0.665
Satisfaction with economic situation (1-7)	125	2.23 (1.49)	52	2.82 (1.66)	52	2.88 (1.83)	-1.430	-1.761
Satisfaction with safety (1-7)	123	3.87 (1.79)	52	4.37 (1.51)	51	4.23 (1.70)	-1.694	-1.847
Satisfaction with health (1-7)	128	4.43 (1.67)	52	4.12 (1.69)	54	4.17 (1.85)	0.724	-0.743

* $p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

Perception of change

With regard to the change in their lives perceived by the people themselves, the data show that an important percentage of them perceived that their life had improved to some extent in various aspects: at 6 months, around 60% perceived that their leisure had improved, as had their housing situation and their lives in general, and almost one half of them perceived that their health had also improved. The lowest percentages of perceived improvement were found in the work situation (64.2% of the participants did not consider their work situation to have changed), and in the relationship with family and friends (58.5%).

The situation at the 12-month follow-up did not seem very different in the areas where more improvement had been perceived: life in general, housing, leisure activities, and health.

Table 17. Participants' perception of change in their lives at Follow-ups 1 and 2.

	F1		F2	
	%	<i>n</i>	%	<i>n</i>
Do you think your leisure activities and free time have improved since you joined the project?				
No, actually, they are worse	5.7	3	7.5	4
No, they have not really improved	32.1	17	37.7	20
Yes, they have improved a bit.	26.4	14	20.8	11
Yes, they have improved a lot	35.8	19	34.0	18
Don't know/ No reply	0.8	1	1.5	2
Do you think your housing situation has improved since you joined the project?				
No, actually, it is worse	1.9	1	7.5	4
No, it has not really improved	35.2	19	28.3	15
Yes, it has improved a bit.	13.0	7	15.1	8
Yes, it has improved a lot	50.0	27	49.1	26
Don't know/ No reply	0	0	1.5	2
Do you think your health has improved since you joined the project?				
No, actually, it is worse	9.3	5	22.6	12
No, it has not really improved	40.7	22	30.2	16
Yes, it has improved a bit.	14.8	8	18.9	10
Yes, it has improved a lot	35.2	19	28.3	15
Don't know/ No reply	0	0	1.5	2
Do you think your relations with friends and family have improved since you joined the project?				
No, actually, they are worse	5.7	3	5.8	3
No, they have not really improved	58.5	31	51.9	27
Yes, they have improved a bit.	11.3	6	21.2	11
Yes, they have improved a lot	24.5	13	21.2	11
Don't know/ No reply	.8	1	2.3	3
Do you think your work situation has improved since you joined the project?				
No, actually, it is worse	7.5	4	1.9	1
No, it has not really improved	64.2	34	67.9	36
Yes, it has improved a bit.	9.4	5	15.1	8
Yes, it has improved a lot	18.9	10	15.1	8
Don't know/ No reply	.8	1	1.5	2
Do you think your life in general has improved since you joined the project?				
No, actually, it is worse	5.6	3	7.7	4
No, it has not really improved	37.0	20	28.8	15
Yes, it has improved a bit.	22.2	12	23.1	12
Yes, it has improved a lot	35.2	19	40.4	21
Don't know/ No reply	0	0	2.3	3

DISCUSSION

In view of the results (without forgetting that these are preliminary results), in general, one could say that, although the participants' situation is still a matter of concern at the 6- and 12-month follow-up assessments, there is a tendency toward improvement in some very important areas such as the housing situation or health status of the users of the programs that were selected to participate in this study. This improvement is also observed if participants' perception of changes in their lives is taken into account. Improvement was perceived in areas such as life in general, housing situation, or leisure activities.

On the other hand, although there was no notable improvement in other areas, neither was there any deterioration. It is very important to take this into account when talking about persons in such an extreme situation of social exclusion, which is usually accompanied by very considerable deterioration in many areas.

Therefore, in this particular case, we can maintain that the results indicate that the situation of the users of programs that were considered good practices by experts seem to improve over time in some areas, slowing down deterioration in most areas.

Of course, it is essential to take into account the limitations of this study when considering the results. Chiefly, these limitations are the following:

- **Follow-up duration.** The programs aimed at homeless people set very long-term goals, so that in order to study their effects, repeated measures should be taken over fairly long time intervals (18 or 24 months). In addition, this kind of study, which attempts to analyze the effects of interventions, should also investigate whether the effects achieved by the interventions are maintained over time.
- **Follow-up rate.** Although the percentage of follow-up obtained in this study is comparable to those obtained in other works with similar population (whose characteristics make their subsequent localization difficult), the number of persons about whom we have no subsequent information is considerable. One could conclude that the participants who do not participate at follow-up are precisely those who improve the most and who disappear from the circuit of resources for the homeless. On the other hand, they could also be the persons who suffer the most deterioration.
- **Lack of a control group.** The absence of a control group is one of the most important limitations of this work, because it does not allow us to attribute the changes observed in the sample to participation in the programs. Even taking into account the difficulty of finding a control or comparison group, which is very complicated in this type of work, it cannot be ignored that this fact considerably interferes with the assumption that the changes observed in program users' situation is due to their participation in the programs.