

# Social Psychiatry and Psychiatric Epidemiology

## CHRONIC STRESS IN IMMIGRANTS AND RELATIVES OF PEOPLE WITH MENTAL ILLNESS: A COMPARATIVE STUDY

--Manuscript Draft--

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<b>Abstract:</b>	Being an immigrant or living with a person who experiences mental health problems can lead to high levels of emotional problems in individuals who cope with these situations. Purpose: The aim of this study is to compare chronic stress in immigrants and relatives of people with mental health problems. Method: The sample comprised 108 adults (58 immigrants and 50 relatives of people who have mental health problems) who were seeking help due to their emotional problems. Results: In both groups there was an overrepresentation of women. The immigrants were younger; had a lower level of education and had higher unemployment rates than the relatives of people who have mental health problems. Both groups show a high symptomatology and low self-esteem. Problems in interpersonal relationships and anxious-depressive symptomatology were more severe in immigrants. Conclusions: We discuss the future research implications arising from the study. The fact that immigrants report similar symptomatology to relatives might mean that some of the treatments for relatives which are well established and effective could be applied to immigrants.

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3 **MENTAL ILLNESS: A COMPARATIVE STUDY**  
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2 **ABSTRACT**  
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5 high levels of emotional problems in individuals who cope with these situations. Purpose: The  
6 aim of this study is to compare chronic stress in immigrants and relatives of people with mental  
7 health problems. Method: The sample comprised 108 adults (58 immigrants and 50 relatives of  
8 people who have mental health problems) who were seeking help due to their emotional  
9 problems. Results: In both groups there was an overrepresentation of women. The immigrants  
10 were younger; had a lower level of education and had higher unemployment rates than the  
11 relatives of people who have mental health problems. Both groups show a high symptomatology  
12 and low self-esteem. Problems in interpersonal relationships and anxious-depressive  
13 symptomatology were more severe in immigrants. Conclusions: We discuss the future research  
14 implications arising from the study. The fact that immigrants report similar symptomatology to  
15 relatives might mean that some of the treatments for relatives which are well established and  
16 effective could be applied to immigrants.  
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19 **KEY WORDS:** immigrants, relatives of patients with mental disorders, chronic stress,  
20 adjustment disorder.  
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2 *INTRODUCTION*  
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4 Stress is the physiological, emotional, cognitive and behavioral response which manifests itself  
5 when demands are made of a person which overwhelms his or her capacity to cope. Thereby,  
6 stress is a triple system response in the face of a perceived threat, a change or a significant  
7 loss. When the stressor is prolonged and chronic, it can physically, emotionally, cognitively and  
8 behaviourally exhaust the individual [1].  
9

10 The consequences of stress are manifested at different levels [2-3]: a) At an emotional level,  
11 anxiety, fear, irritability and depressive moods are exhibited; b) At a cognitive level, we can  
12 often detect decreased attention, memory and concentration impairment and reduction in the  
13 ability to solve problems and learn, such as forgetfulness, mental blocks, mistakes, constant  
14 worry and indecision; and c) At a behavioral level we can observe decreased productivity,  
15 fatigue, increased consumption of tobacco and alcohol, sleep and eating disorders, escape,  
16 avoidance and social isolation. Chronic stress can also lead to various types of health  
17 problems, such as cardiovascular, endocrinological, gastrointestinal, immune and respiratory  
18 diseases.

19 From a diagnostic point of view, according to the DSM-IV-TR [4], an Adjustment Disorder  
20 (anxious, depressive or mixed type) which is produced in response to a recognizable  
21 psychosocial stressor is the diagnostic category that is most frequently associated to the  
22 experience of chronic stress [5]. This disorder is highly prevalent and can be present between 5  
23 and 21% of outpatients and in 7.1% of hospital admissions [6-7].  
24

25 Living with a family member who has severe mental problem or coping with the migration  
26 process frequently involves a chronic stress of great intensity, which affects multiple areas of a  
27 person's life. Families have become the essential community support for people affected by  
28 severe psychiatric problems. Couples' problems, disagreements and tensions among family  
29 members, social marginalization and a lack of support are common among families with a  
30 member with mental health problems. Thus children, parents, brothers and partners of the  
31 people with severe and/or chronic mentally health problems are at increased risk of developing  
32 mental health problems themselves and show higher rates of emotional disorders [8-9-10-11-  
33 12-13].

34 In fact, caring for a person with health problems involves addressing a range of stressful  
35 situations [14], such as progressive dependence, disruptive behaviors presented by the patient,  
36 the restriction of freedom, loss of past lifestyles and tackling new tasks related to the demands  
37 of the life cycle. Specifically, sources of stress for caregivers are diverse: the lack of  
38 understanding of family behavior and denial of problem existence for this person, discussions  
39 and difficulties in relationships, not knowing how to act in the daily living and the financial and  
40 legal consequences. There are also difficulties with the health system in the process of  
41 diagnosis and treatment of the disease [15-16].  
42

43 According to Bayes, Arranz, Barbero & Barreto [17], in at least 80% of cases it is the family  
44 who takes care of the person with mental health problems in the family home. Sixty five percent  
45 of the caregivers who take care of the patient will undergo substantial changes in their lives and  
46 a significant decline in their physical and psychological health. Up to 20% of these will develop a  
47 strong clinical profile known as "Burnout" or "Burn-out Carer Syndrome".  
48

49 In terms of immigrant stress, the most common sources of stress are derived from getting to  
50 the destination country, obtaining residence, work permits, finding a job, coping with the fear of  
51 deportation, registration, having access to health care, earning enough money to survive and  
52 pay the debts, overcoming prejudices and/or achieving family reunification. So, the immigrant  
53 has to face chronic, multiple and highly stressful psychosocial stimuli without a social support  
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2 network and lacking a sense of control [18-19] . All this can give rise to various symptoms of  
3 depression, anxiety, somatic symptoms and symptoms of confusion [20-21]..  
4

5 In summary, both the immigrant population and the relatives of mental health patients have to  
6 cope with stressful situations of great intensity and duration, many of them novel and  
7 unpredictable, which generate great uncertainty and ambiguity [22]. Usually, these difficulties  
8 are experienced in isolation and with little social support, because of prejudice in the case of the  
9 immigrant population and the social stigma in the case of the families of people with mental  
10 health problems. According to Talarn, Navarro, Rossell & Rigat [23] who describe the  
11 experience of acute stress, chronic stress and trauma, both living with a family member with  
12 long-term mental health needs as well as living as an immigrant can be considered stressful  
13 situations that can lead the affected persons to experience an intense emotional reaction and/or  
14 a hard and long periods of adaptation.

15 Given the scarcity of studies on these types of populations, the main objectives of this study are  
16 to define the sociodemographic profile and determine the level of their symptoms and self-  
17 esteem of both samples, as well as comparing them. A secondary objective is to specify the  
18 type of target-behaviour that arise when patients came approach mental health services for  
19 help. We know that relatives experience a high level of stress. We suspect that immigrants do  
20 to, so if we compare them to relatives and they are found to have higher levels of stress, we will  
21 know that they are a really disadvantaged group who need lots of resources, the fact that they  
22 report similar target problems to relatives might mean that some of the treatments for relatives  
23 which are well established and effective could be applied to immigrants.  
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25

## 26 *METHOD*

### 27 *Participants*

28  
29 The study sample consisted of 108 adults (58 immigrants and 50 relatives of patients with  
30 mental disorder). In both cases, they were people who attended a psychological support  
31 programme which is designed to alleviate the symptomatology associated with the migration  
32 process in the first case and to alleviate stress associated with living with the family member in  
33 the second case. This programme was carried out in the School of Psychology at a University in  
34 the Basque Country. The inclusion criteria for admission to the study were the following: a) to be  
35 of age, b) to be able to complete the questionnaires, and c) to present an adjustment disorder.  
36 The specific criteria for admission were being first generation immigrants and having an  
37 economic motivation in the case of the sample of immigrants and to have lived or to be living  
38 with the family member with mental health problems, in the case of the relatives.  
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41 The immigrant populations were mainly from Latin America (51) and Africa (7, 5 of whom were  
42 from Morocco, the other 2 were from Africa). The characteristics of the sample are described in  
43 Table 1.  
44

45 TABLE 1

### 46 *Design*

47 The design of the study was cross- sectional.  
48  
49

### 50 *Assessment tools*

51 *SCL-90-R Scale* [24-25]. This instrument was used to evaluate the presence of general  
52 psychopathology symptoms. The scale consists of 90 items with 5 possible answers on a Likert  
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2 scale, ranging from 0 (none) to 4 (very much). The scale assesses 9 symptom dimensions  
3 (somatization, obsession-compulsion, interpersonal sensitivity, depression, anxiety, hostility,  
4 phobic anxiety, paranoid ideation and psychoticism). It also provides three global indexes that  
5 reflect the severity of symptoms: the global severity index (GSI), the overall rate of positive  
6 symptoms (PST) and the index of the intensity of symptoms (PSDI). The internal consistency of  
7 the questionnaire ranges from .81 to .90 and the test-retest reliability from .78 to .90.

8  
9 *Self-Esteem Scale* [26-27]. This self-report measure aims to assess the feeling of satisfaction  
10 that a person has about him/herself. This instrument consists of 10 general items which score  
11 from 1 to 4 on a Likert scale. The range of the questionnaire is from 10 to 40, the higher the  
12 score, the greater the self-esteem. The test-retest reliability is .85, the alpha coefficient of  
13 internal consistency is .92. The cut-off score in an adult population is 29 [28].

14  
15 *Target-Behaviors Scale* [29]. This is a self-report measure, in which patients make up a list of  
16 five types of behavior that they want to improve and would represent a significant benefit to their  
17 daily lives. These five target-behaviors are valued according to their degree of difficulty from 1  
18 to 10 each, with a range varying from 5 to 50.

#### 19 *PROCEDURE*

20  
21 | After obtaining permission from the Ethics Committee of the University, the existence of a free  
22 psychological support programme for immigrants and families of the mentally ill people was  
23 spread through the media, aid organizations and institutions linked to both types of populations  
24 (Red Cross, Caritas, Association of Mentally Ill Patients, Alcoholics Anonymous, etc.). Those  
25 interested who got in touch with the programme were evaluated to see if they met the inclusion  
26 criteria. They were then offered information about the programme and asked for their informed  
27 consent. Finally, the assessments were carried out over 2 sessions (one hour each session).

28  
29 The programme described in this study was carried out in San Sebastián (Basque Country,  
30 Spain) from 2008 to 2012.

#### 31 *DATA ANALYSIS*

32  
33 SPSS 20 was used for analyzing the data. Descriptive analysis (means, standard deviations  
34 and frequencies) and group comparisons were performed using T tests for independent  
35 measures in quantitative variables and chi-squared tests for qualitative variables. The effect  
36 size was calculated using Cohen's D (quantitative variables) and Cramer's V (qualitative  
37 variables). In addition, we compared the results of the sample with the normal population scales  
38 of the SCL-90-R.

#### 39 *RESULTS*

##### 40 *Sociodemographic variables*

41  
42  
43 Table 2 describes the main demographic characteristics of the two samples (immigrants and  
44 families of people with mental health problems). Most individuals who come to the programme  
45 for counseling were women (82%), and both samples show this trend to a similar level.

46  
47 Immigrants who seek psychological support were younger, had a lower level of education and  
48 had higher unemployment rates. They also had a lower income level and on average had been  
49 away from their country for 3.5 years, so they were still in the first phase of settlement. The  
50 relatives of the patients with mental health problems had been living with them for an average of  
51 24 years, they were middle-aged (on average 44 years old), 62% of them were married and  
52 more than half of the sample group had University degrees and were economically better off.

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2 Despite the differences being statistically significant, these differences were quite small, except  
3 in the case of age ( $d=0,86$ ).  
4

5 TABLE 2  
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7  
8 *Psychopathological variables, self-esteem and target- behaviors in both samples of participants*  
9

10 Table 3 describes the main features of psychopathology and self-esteem of the two samples  
11 (immigrants and relatives of the mentally ill). Both immigrants and the families of people with  
12 mental health problems had scores well above the 50th percentile of the general population in  
13 the Global Severity Index (GSI) of SCL-90-R. And at a level of specific dimensions, both  
14 relatives, with percentiles between 85 and 95, and immigrants, with scores corresponding to  
15 percentiles 95-97, were well above the average percentiles of the general population in all  
16 subscales. Therefore, both samples have significant emotional problems when compared with  
17 the general population.  
18

19 TABLE 3  
20

21 | Comparing the two samples, the overall level of emotional distress and psychopathology were  
22 higher in the immigrant population than in the population of relatives. For example, the  
23 differences were statistically significant for the GSI ( $t = 3.65$ ,  $p <.001$ ) and with a medium effect  
24 size ( $d = 0.72$ ). More specifically, the immigrant population had higher scores on the subscales  
25 related to interpersonal relationships (interpersonal sensitivity, paranoid ideation, psychoticism  
26 and hostility). Thus, immigrants showed more shame, inferiority feelings, hypersensitivity to the  
27 opinions of others, suspicion, fear of loss of autonomy, need for control, social alienation, anger,  
28 irritability, rage and resentment. The size of the differences was large in paranoid ideation ( $t =$   
29  $4.56$ ,  $p <.001$ ,  $d = 0.89$ ) and psychoticism ( $t = 4.92$ ,  $p <.001$ ,  $d = 0.95$ ) subscales.  
30

31 As for the anxious-depressive symptoms, scores were also higher in the immigrant population,  
32 but the size of the difference was medium (depression subscale,  $d = 0.74$ , and anxiety  
33 subscale,  $d = 0.50$ ).  
34

35 | Furthermore, the level of self-esteem was below the cut\_off score in both samples, but scores  
36 did not differ statistically between the groups. Finally, the level of difficulty in target- behaviors  
37 that participants wished to work on the psychological support programme was perceived as high  
38 (mean: 40; range 5 to 50) and was similar in both samples.  
39

40 Table 4 shows some examples of target-behaviors frequently reported by patients.  
41

42 TABLE 4  
43

#### 44 *DISCUSSION AND CONCLUSIONS*

45 According to the results obtained in this study, the prevalence of women in the total sample is  
46 much higher (about 80%) than men. The caregiving role usually falls upon women. Regarding  
47 immigration, women are seeking more support because they are in a more vulnerable position  
48 than men, have poorer working and economic conditions and have also very often have left  
49 their children in their countries of origin [30-31-32]. This finding is consistent with studies on the  
50 demand for care at Mental Health Centers by patients with anxious-depressive symptomatology  
51 and adaptive disorders [33-34-35].  
52

53 Clinically, chronic stress involved in the migration process or in living with relatives of people  
54 with mental health problems creates a significant emotional distress, as shown in other studies  
55 [36-37-38]. More specifically, the level of psychopathological distress is well above the 50th  
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2 percentile of the general population, reflecting the need to provide support for these  
3 populations. The situations that they face threaten their coping skills and produce high levels of  
4 distress [39-40-41].  
5

6 When comparing the two samples, immigrants were younger, were less educated and were in a  
7 lower socioeconomic and poorer employment situation, which may give rise to a greater  
8 emotional instability, as shown in previous studies [19]. In terms of psychopathology ,  
9 immigrants had a higher intensity of symptoms than family members,. This finding can be  
10 explained by the economical insecurity, the greater social isolation and uncertain legal situation  
11 that immigrants face. The psychosocial stress that the immigrant population has to face, along  
12 with the effort to adapt to a new culture, may explain the higher number of and type of  
13 symptoms experienced [42-43]. Furthermore, the period of time exposed to stressful stimuli is  
14 different between the two samples: the relatives have been exposed to the stressor for a longer  
15 period of time and they could therefore be more accustomed to the burden of the stressful  
16 situation involved.  
17

18 However, the symptomatological profile is similar in both samples. In both groups there are two  
19 groups of symptoms: first, those related to interpersonal relationships (interpersonal sensitivity,  
20 psychoticism and paranoid ideation) with levels of distress somewhat higher among immigrants;  
21 and secondly, those related to the presence of recurrent and repetitive thoughts, (emotional  
22 tension, dysphoric mood, hopelessness and helplessness), which are related to anxiety-  
23 depressive symptoms.  
24

25 Regarding the level of self-esteem, it was low in both groups, without differences between them.  
26 The stigma of mental illness and addiction [44] and the feeling of guilt of the family members  
27 and social prejudice of immigrants [45-46] may explain the negative self-images of in these  
28 groups of individuals.  
29

30 Finally, the perception of low self-effectiveness in dealing with stressful situations, poor social  
31 support, economic hardship and fatigue resulting from protracted situations, as well as low self-  
32 esteem, make it difficult to cope with stressful situations. Thus, from the viewpoint of target-  
33 behaviors, there are common aspects that highlighted by both relatives of people with mental  
34 health problems and immigrants. Specifically, the management of anxiety and concerns, and  
35 the reduction in self-demand, are common features identified by both samples.  
36

37 This study contributes to a better understanding of people who are under chronic stress. And  
38 this is essential, as untreated cases can evolve in time to become more severe disorders and  
39 consume more health care resources [47-48].  
40

41 One limitation of this study is that the sample is not excessively large. Future studies could  
42 expand the sample size and establish various subgroups, specifying in the case of relatives the  
43 types of mental illness with which they have to live and in the case of immigrants the different  
44 backgrounds of the subjects.  
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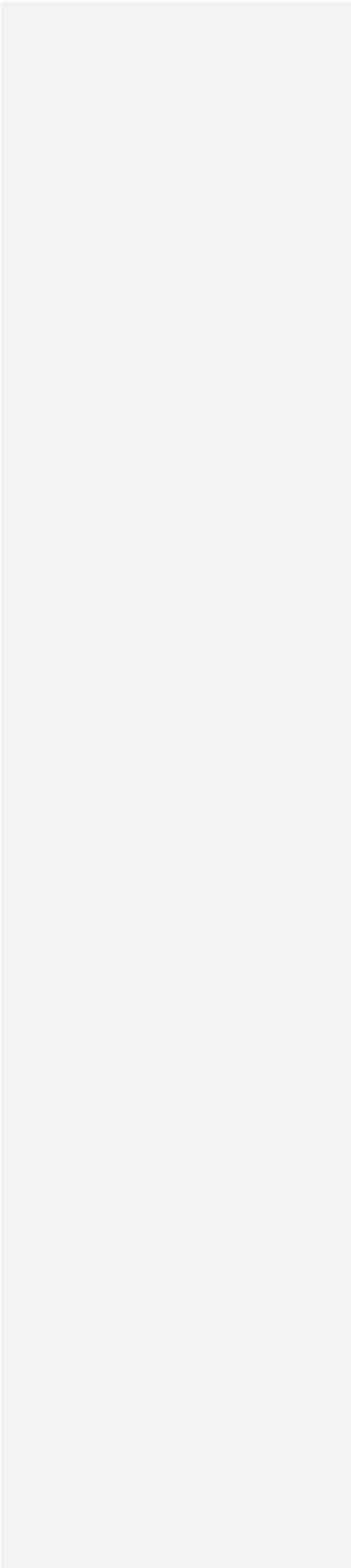
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**Table I. Characteristics of the sample of families (N=50)**

DEGREE OF KINSHIP	TYPE OF MENTAL ILLNESS
Descendants: 19 persons Parents: 16 persons ○ Mother: 11 ○ Father: 5 Sister/brother: 9 persons Couple: 6 persons	Psychotic disorder: 27 persons Bipolar disorder: 10 persons Addictions: 6 persons Chronic Depression: 3 persons Personality disorders: 3 persons Autism: 1 person

**Table II. Sociodemographic characteristics of the samples**

<b>Variables</b>	<b>Immigrants</b>	<b>Relatives of mentally ill people</b>	<b>X<sup>2</sup> (g)/ t(g)</b>
<b>SEX</b>			
Men	9 (15,5%)	10 (20%)	X <sup>2</sup> (1)=0,37
Women	49 (84,5%)	40 (80%)	
<b>AGE</b>	<i>M</i> 33,57 ( <i>SD</i> 9,2)	<i>M</i> 44,56 ( <i>SD</i> 15,5)	<i>t</i> (106)=-4,37***
<b>CIVIL STATUS</b>			
Single	18 (31%)	13 (26%)	X <sup>2</sup> (3)=5,60
Married	25 (43,1%)	31 (62%)	
Divorced	9 (15,5%)	5 (10%)	
Widower	6 (10,3%)	1 (2%)	
<b>EDUCATION LEVEL</b>			
First level	15 (25,9%)	11 (22%)	X <sup>2</sup> (2)=17,78 ***
Secondary level	32 (55,2%)	11 (22%)	
Universitary level	11 (19%)	28 (56%)	
<b>WORK</b>			
Working	33 (56,9%)	31 (62%)	X <sup>2</sup> (2)=8,01 *
Unemployment	24 (41,4%)	12 (24%)	
Studyng/other	1 (1,7%)	7 (14%)	
<b>INCOME</b>			
Less than 1000€	51 (87,9%)	24 (48%)	X <sup>2</sup> (1)=20,17***
More than 1000€	7 (12,1%)	26 (52%)	
<b>MONTHS OUT OF THEIR COUNTRY</b>	<i>M</i> 40,97 ( <i>SD</i> 32, 65)	-----	
<b>YEARS LIVING WITH THE FAMILIAR MENTALLY ILL</b>	-----	<i>M</i> 24,48 ( <i>SD</i> 7,84)	

\* p<.05; \*\* p<.01; \*\*\*p<.001

**Table III. Psychopathological variables, self-esteem and target-behaviors in both samples**

Variables	Immigrants (N=58)			Relatives of mentally ill people (N=50)			<i>t / d</i>
	<i>M</i>	<i>SD</i>	<i>Pc</i>	<i>M</i>	<i>SD</i>	<i>Pc</i>	
<b>SCL-90-R</b>							
Somatization	1,68	0,87	90	1,41	0,73	85	1,72
Obsession	1,84	0,75	95	1,60	0,82	90	1,60
Interpersonal sensitivity	1,93	0,75	97	1,47	0,89	95	2,89** ( <i>d</i> =0,56)
Depression	2,48	0,66	97	1,95	0,77	95	3,85***( <i>d</i> =0,74)
Anxiety	1,84	0,86	95	1,46	0,65	90	2,61** ( <i>d</i> =0,50)
Hostility	1,34	1	90	0,92	0,65	85	2,60* ( <i>d</i> =0,50)
Phobic anxiety	0,98	0,87	90	0,76	0,65	85	1,45
Paranoid ideation	1,76	0,78	95	1,09	0,73	85	4,56*** ( <i>d</i> =0,89)
Psychoticism	1,25	0,63	97	0,68	0,56	90	4,92*** ( <i>d</i> =0,95)
GSI	1,75	0,58	97	1,36	0,50	95	3,65*** ( <i>d</i> =0,72)
PST	60,6	15,16	97	50,3	14,21	95	3,62*** ( <i>d</i> =0,70)
PSDI	2,50	0,57	90	2,40	0,60	85	0,90
<b>Self-esteem (10-40)</b>	27,16	4,18		27,48	4,82		-0,36
<b>Target-behaviors scale (5-50)</b>	40,86	6,31		40,94	4,92		-0,07

*Pc*: SCL-90-R percentils of general population

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\* $p < .001$

**Table IV. Examples of target-behaviors**

<b>Target- behaviors reported by immigrants</b>
<ul style="list-style-type: none"><li>• To be stronger, less afraid and face situations.</li><li>• To worry less and to be able to focus on reality.</li><li>• To be able to handle anxiety and nervousness, shyness and embarrassment.</li><li>• To try to be less sad, to be in a better mood and feel less guilty.</li><li>• To reduce perfectionism.</li><li>• To improve relationships with partner, family and society.</li><li>• To learn to say no, to defend your rights, to ask for something.</li><li>• Not shouting and controlling anger and frustration.</li><li>• To be able to study and have legal papers, that is, work permits and residence.</li></ul>
<b>Target-behaviors reported by relatives of the mentally ill patients</b>
<ul style="list-style-type: none"><li>• To manage anxiety and panic</li><li>• To improve family communication</li><li>• To improve social skills and assertiveness</li><li>• To reduce the level of self-demand</li><li>• To manage excessive worry</li><li>• To relieve emotional distress</li><li>• To handle feelings of guilt</li></ul>