

## USE OF PSYCHIATRIC EMERGENCY SERVICES BY IMMIGRANTS IN AN ITALIAN FIRST AID SETTING

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### Abstract

**Objective:** To describe the demand for psychiatric interventions by foreign nationals in an Emergency Room setting and to assess any difference in psychopathological presentation and outcome of the intervention between Italians and immigrants.

**Method:** We reviewed 10082 psychiatric consultations, conducted between January 1<sup>st</sup> 2003 and December 31<sup>st</sup> 2008 at the Emergency Department (ED) of Padova General Hospital. Patients with more than one consultation in the index period were excluded. 898 immigrants were compared to a control group of 5304 Italians.

**Results:** Sub-Saharan and Asian patients appeared to have a more than doubled risk of being diagnosed with a non-affective psychotic disorder (respectively, OR=2.11 and OR=2.43). Sub-Saharan patients had also a higher probability of being referred by the ED physician for an improper psychiatric consultation (OR=4.10). Patients from an European or a North African country were associated to a higher probability of being referred to an Italian outpatient service, while compulsory admission was found to be significantly associated to diagnosis but not to nationality.

**Conclusions:** A different use of psychiatric emergency services by some ethnic and minority groups may require the planning for further studies and adequate treatment and prevention strategies.

**Key words:** psychosis, psychiatric emergency services, immigrants, health care research

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### Introduction

The evidence of specific mental health problems for immigrants and the consequent need for planning and developing adequate mental health strategies in a multi-ethnic and multi-cultural context has been widely supported by different Authors (Kirkbride et al. 2006, Kirmayer et al. 2007).

In countries with a long history of immigration, it has been suggested that “migrants” should not be considered as a homogeneous group regarding the risk for mental illness (Carta et al. 2005): second generation immigrants have shown to be at greater risk for some mental disorders (Cantor-Graae and Selten, 2005) and for some ethnic groups a long tradition of studies has evidenced an increased risk for psychotic disorders (Kirkbride et al. 2006, Bhugra et al. 1997, Cantor-Graae et al. 2003, Selten et al. 2001). A different risk profile for immigrants, and for some groups in particular, seems

to be related with a variety of factors, which may involve both pre-migration conditions (Fazel et al. 2005) and the nature of integration into the new country (Cantor-Graae and Selten 2005).

Italy has just recently become an immigrant country, and while the vast majority of immigrants in Central Europe and Scandinavian countries come from elsewhere in Europe, the Mediterranean area, together with United Kingdom and Netherlands, attracts a higher proportion of immigrants coming from inter-continental migration. Due to socio-economical reasons, the urban areas (such as the one of Padova) in the Italian North-Eastern region have one of the highest immigration rates in Europe. The situation reflects the complexity and variety of migratory movements, with a high proportion of immigrants coming from Eastern European countries (47.1%), but also from African (26.5%) and Asian countries (16.7%) (data extracted from the Veneto Region Immigration Observatory, December 31<sup>st</sup>, 2006;

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www.venetoimmigrazione.it). This intricate and evolving situation asks for a careful analysis of the specific needs of foreign nationals in mental health and social care.

The lower use rates of Mental Health Services by immigrant patients may reflect cultural, linguistic (Kirmayer et al. 2007) and also institutional barriers to care. In Italy it is not possible to see a general practitioner or a specialist physician (including psychiatrists) within the public healthcare system without a healthcare card. Therefore, illegal immigrants are forced to go directly to the Emergency Room (ER) when they need general or specialist medical care. This suggests that the ER should be considered as the main setting for immigrants' first psychiatric contact, where the first diagnostic assessment and the therapeutic outcome may strongly influence the following therapeutic pathway.

The aims of this research are: 1) to describe and compare the demand for psychiatric interventions by foreign nationals and Italians at the Emergency Room of Padova General Hospital; 2) to assess any difference in demographic variables and/or psychopathological presentation among groups; 3) to verify whether nationality may have an influence on pathway to psychiatric specialist care, especially as regards admission to inpatient facilities, compulsory admission and referral to outpatient specialist services.

## Materials and methods

### *Selection and description of participants:*

Many different definitions of immigrants have been used in literature and the most appropriate way to register and study immigrant issues is still being debated. The present study defined immigrant status by country of birth (Kaplan and Bennett 2003), and therefore the population was divided between Italians and foreign-born. Our research was specifically focused on first-generation immigrants, both registered and unregistered, regardless of geographical, cultural or socio-economical background.

The study was based on the consultations by on-call psychiatrists referred to the Psychiatric Emergency Service of Padova University, between January 1<sup>st</sup> 2003 and December 31<sup>st</sup> 2008.

Every patient referring to the Emergency Department (ED) of Padova General Hospital is examined by a triage nurse. A preliminary evaluation is there performed, before transferring care to another area of the ED or to a different hospital department. Patients with life or limb-threatening conditions can bypass triage and be seen directly by a physician. In case of suspected mental illness, having the triage nurse or the senior house officer ascertained that no immediate medical problem need attention, a psychiatric consultation is always required. The Psychiatric Emergency Service is guaranteed 24 hours a day and in the index period it was available to everybody, including unregistered immigrants.

All contacts are registered into the electronic register of ER visits, which collects demographic data (birth date, gender, nationality) and some essential

clinical information (reason for referral, diagnostic course and outcome of the intervention). Every psychiatric consultation is then registered by the psychiatrist into a hard-copy register containing: demographic data, a brief psychiatric history report, a concise description of the clinical presentation, a diagnostic hypothesis and the therapeutic outcome of the intervention.

A total of 10262 psychiatric consultations were examined. One hundred and eighty consultations were not included because missing of some essential information on age (n=3), nationality (n=22), diagnosis (n=143) and outcome of intervention (n=12). As children and young adolescents are routinely referred to the Pediatric ED, our sample only included patients aged more than 15 years. In line with previous evidence (Perez et al. 1986), subjects with more than one consultation in the index period (n=3880; 37.8%), accounted for a consistent proportion of the sample. The great majority of "repeaters" were Italians (93.38%). We excluded subjects who had had more than one contact in the index period in order to limit possible biases due to repetition. The final sample was made of 6202 patients, including 5304 Italians (85.52%) and 898 immigrants (14.48%).

All the contacts reported in the ER database were examined for demographic variables (age, gender and nationality) and integrated with the diagnostic information registered into the psychiatric consultation register. All sensitive data were previously blinded from our database, according to the Italian legislation (D.Lgs 196/2003). Immigrant patients were divided into six areas according to the country of origin and the geographic distance from Italy: 1) Central Europe, 2) Eastern Europe, 3) North Africa, 4) Sub-Saharan Africa, 5) South America and 6) Asia. This division was based on a previous study by Pascual et al. (Pascual et al. 2008), which showed significant differences in diagnosis according to area of origin. We chose to further divide Eastern from Central European foreign nationals because they probably move to Italy for different reasons (migration vs tourism).

Diagnoses were assigned by two specifically trained psychiatrists after reviewing all available information, including data from medical records and clinical interviews with the patient and relatives. Clinical diagnoses were grouped according to the chapter headings of the International Classification of Diseases (ICD-9), which is currently the standard coding system in Italian hospitals. 1) Schizophrenic psychosis and paranoid states (codes 295, 297 and 298.1-9); 2) mood disorders and affective psychoses (codes 296, 298.0, 300.4); 3) anxiety disorders (code 300) and 4) alcohol and substance-related disorders (codes 303.0 and 292) were the main diagnostic categories. Patients referring to the ED after an attempted suicide (or an deliberated self-harm) act of or an episode of psychomotor agitation were also examined in order to detect any potential difference among groups. Finally, all the consultations which had been inappropriately required to the Psychiatric Emergency Service (e.g. social problems, undiagnosed medical condition etc.) were analyzed. This macroscopic categorization was created in order to reproduce the operational criteria which guide the

diagnostic and decisional process in an emergency context.

As regards the outcome of the intervention, we considered three possible pathway to specialist care after an ER contact: 1) voluntary admission to a psychiatric ward, 2) compulsory admission to a psychiatric ward, and 3) referral to a psychiatric outpatient service.

### Statistical analysis:

Demographic and illness characteristics were compared by using a Chi-square test for categorical data and an analysis of variance (ANOVA) for continuous measures. A non-linear logistic regression model was performed to assess the predictive impact of demographic variables and nationality on diagnosis and pathway to care. In our model age, gender and area of origin were used as independent variables, while diagnosis and outcome of the intervention were considered as the dependent variables. 'Statistica' (Statsoft) package was used for the analyses.

### Results

Our sample was made of 6202 patients, including 5304 Italians (85.52%) and 898 immigrants (14.48%). **Table 1** provides details of demographic and clinical characteristics of the sample. Italians were significantly older than immigrants ( $46.30 \pm 18.78$  vs  $32.13 \pm 10.50$ ), while patients coming from Central Europe were the oldest among foreign nations ( $F=5.16$ ;  $d.f.=5.892$ ;  $p=0.0001$ ). No gender difference in service usage was found between Italians and immigrants ( $\text{Chi-sq}=0.06$ ;  $d.f.=1$ ;  $p=0.79$ ). Among the various sub-groups there was a significant prevalence of males in the North African group (74.84%), while European and South American immigrants had a strongly significant female prevalence.

Symptom presentation and reason for referral resulted to be different among groups. Schizophrenic psychosis and paranoid states (named "Psychosis" in **table 1**) were more prevalent in the Sub-Saharan and Asian groups. These patients, together with North Africans, came also more frequently to the ED after an episode of psychomotor agitation. Conversely, mood and anxiety disorders appeared to be more prevalent among Italian, European and South American patients.

A logistic regression model was then performed to assess the predictive impact of age, gender and nationality on diagnosis. The adjusted Odds Ratios and the 95% confidence intervals for these variables are reported in **table 2**. Most of the findings of linear analyses were confirmed, suggesting that the association between nationality and diagnosis may be independent from age and gender. Female gender was significantly associated to referral for mood disorders, anxiety disorders and attempted suicide, while male gender was more associated to a diagnosis of non-affective psychosis, substance related disorders and psychomotor agitation.

Compared to all other groups, Sub-Saharan and Asian patients exhibited a more than doubled risk of

being diagnosed with a non-affective psychotic disorder (respectively,  $\text{OR}=2.11$  and  $\text{OR}=2.43$ ). Conversely, they exhibited a reduced risk of being assessed for an anxiety disorder and after an attempted suicide (or an act of deliberated self-harm). Substance related disorders were also included in the model to detect any potential effect of substance use on psychotic symptom presentation: no relevant differences were found in the Odds Ratios for those groups (respectively,  $\text{OR}=2.52$  and  $\text{OR}=2.24$ ). Psychomotor agitation was also significantly associated with the Sub-Saharan ( $\text{OR}=3.06$ ) and the North African groups ( $\text{OR}=1.94$ ). Again, including substance related disorders and psychosis in the model, the association didn't change (respectively,  $\text{OR}=3.35$  and  $\text{OR}=1.93$ ). Only psychosis resulted to be significantly though negatively associated to the condition of psychomotor agitation ( $\text{OR}=0.55$ ;  $p<0.0001$ ). Interestingly, Sub-Saharan patients had a more than four folds higher probability of being referred by the ED physician for an improper psychiatric consultation ( $\text{OR}=4.10$ ).

We observed an influence of gender on outcome, as women were apparently less frequently admitted to a psychiatric ward. Coming from an Eastern European or a North African country was associated to a higher probability of being referred to an Italian outpatient service, while coming from a Central European country was associated to voluntary admission to a psychiatric ward. Finally, compulsory admission was found to be significantly associated to non-affective psychosis and psychomotor agitation, but not to nationality.

### Discussion

The development of Mental Health strategies in a multi-ethnic and multi-cultural context asks for a careful consideration of the specific needs of immigrant patients. This should include not only the role of ethnic and cultural differences in expressing mental health problems, but also the nature of integration into the new country and the way mental health services are used (Cantor-Graae and Selten 2005).

The demographic pattern of our sample reflects the complex migratory situation of Mediterranean countries, which are crossroads of both European and inter-continental migration currents: the highest percentage of contacts was for Eastern European countries (7.87%), followed by North (2.50%) and Sub-Saharan African countries (1.69%). The difference in age and gender distribution among groups is supposed to depend on the origin and development of the different migratory currents, also supporting the view that Italy has just recently become an immigrant country.

The most striking of our results was that immigrants coming from Sub-Saharan and Asian countries had a more than two folds higher probability of being diagnosed with a non-affective psychotic disorder than all others. The first possible explanation for this finding is a higher prevalence of these disorders among these ethnic groups, a fact which has been widely reported in other countries (Kirkbride et al. 2006, Bhugra et al. 1997, Cantor-Graae et al. 2003, Selten et al. 2001). Unfortunately, the lack of population information makes any epidemiological conclusion only tentative.

**Table 1.** Demographic and psychopathological characteristics of the sample

<b>N (%) / M (SD)</b>	<b>Italy</b>	<b>Central Europe</b>	<b>Eastern Europe</b>	<b>North Africa</b>	<b>S. S. Africa</b>	<b>South America</b>	<b>Asia</b>	<b>Chi-sq / F</b>	<b>d.f.</b>	<b>p</b>
<b>Females</b>	5304 (85.52%)	39 (0.63%)	488 (7.87%)	155 (2.50%)	105 (1.69%)	46 (0.74%)	65 (1.05%)			
<b>Age</b>	3071 (57.90%)	24 (61.54%)	340 (69.67%)	39 (25.16%)	48 (45.71%)	49 (86.96%)	33 (50.77%)	119.84	6	<0.00001
<b>Psychosis</b>	46.30 (18.78)	37.85 (19.31)	33.00 (10.74)	30.31 (8.47)	30.18 (7.54)	30.41 (8.53)	30.92 (9.35)	82.43	6	<0.00001
<b>Mood disorders</b>	810 (15.27%)	9 (23.08%)	80 (16.39%)	23 (14.84%)	32 (30.48%)	7 (15.22%)	18 (27.69%)	26.84	6	0.00016
<b>Anxiety disorders</b>	1358 (25.60%)	6 (15.38%)	114 (23.36%)	36 (23.23%)	12 (11.43%)	17 (36.96%)	3 (4.62%)	32.18	6	0.00002
<b>Substance related disorders</b>	1332 (25.11%)	10 (25.64%)	141 (28.89%)	25 (16.13%)	16 (15.24%)	8 (17.39%)	12 (18.46%)	18.75	6	0.00461
<b>Psychomotor agitation</b>	364 (6.86%)	4 (10.26%)	33 (6.76%)	22 (14.19%)	7 (6.67%)	2 (4.35%)	4 (6.15%)	13.68	6	0.03349
<b>Attempted suicide / Self harm</b>	428 (8.07%)	2 (5.13%)	29 (5.94%)	24 (15.48%)	21 (20.00%)	1 (2.17%)	8 (12.31%)	37.59	6	<0.00001
<b>Not strictly psychiatric condition</b>	706 (13.31%)	2 (5.13%)	69 (14.4%)	24 (15.48%)	6 (5.71%)	7 (15.22%)	13 (20.00%)	11.08	6	0.08581
	215 (4.05%)	3 (7.69%)	26 (5.33%)	11 (7.10%)	15 (14.29%)	3 (6.52%)	4 (6.15%)	31.05	6	0.00002

**Table 2.** Influence of age, gender and nationality on psychopathological presentation

OddsR (95 % CI)	Psychosis	Mood disorders	Anxiety disorders	Substance-related disorders	Psychomotor agitation	Attempted suicide / Self harm	Not strictly psychiatric condition
<b>Age</b>	1.00 (1.00-1.01)	<b>1.01</b> *** (1.01-1.02)	0.98 (0.97-0.98)	<b>0.98</b> *** (0.97-0.99)	1.01 (1.00-1.01)	<b>0.98</b> *** (0.97-0.98)	1.01 (1.00-1.01)
<b>Female gender</b>	<b>0.64</b> *** (0.55-0.74)	<b>1.42</b> *** (1.24-1.61)	<b>1.25</b> *** (1.10-1.41)	<b>0.49</b> *** (0.39-0.61)	<b>0.48</b> *** (0.39-0.60)	<b>1.52</b> *** (1.29-1.80)	<b>0.65</b> ** (0.50-0.83)
<b>Italy</b>	<b>0.71</b> ** (0.59-0.87)	1.02 (0.87-1.20)	<b>1.45</b> *** (1.23-1.72)	1.06 (0.81-1.39)	<b>0.74</b> * (0.57-0.96)	<b>1.29</b> * (1.04-1.60)	<b>0.53</b> *** (0.39-0.72)
<b>Central Europe</b>	1.13 (0.47-2.70)	0.57 (0.24-1.38)	0.84 (0.41-1.75)	1.37 (0.48-3.93)	0.68 (0.16-2.83)	0.29 (0.07-1.19)	2.10 (0.64-6.90)
<b>Eastern Europe</b>	1.30 (1.01-1.69)	1.06 (0.85-1.33)	0.90 (0.73-1.12)	0.87 (0.60-1.27)	0.89 (0.60-1.32)	0.80 (0.61-1.05)	1.51 (0.98-2.33)
<b>North Africa</b>	1.08 (0.70-1.66)	1.24 (0.84-1.82)	<b>0.45</b> *** (0.29-0.69)	1.40 (0.87-2.25)	<b>1.94</b> ** (1.23-3.08)	1.02 (0.63-1.65)	1.72 (0.90-3.27)
<b>S.S. Africa</b>	<b>2.11</b> ** (1.35-3.30)	0.63 (0.36-1.10)	<b>0.40</b> ** (0.23-0.68)	0.68 (0.31-1.49)	<b>3.06</b> *** (1.85-5.06)	<b>0.31</b> * (0.13-0.70)	<b>4.10</b> *** (2.30-7.31)
<b>South America</b>	1.61 (0.76-3.42)	<b>1.95</b> * (1.06-3.57)	<b>0.43</b> * (0.20-0.92)	0.60 (0.14-2.51)	0.37 (0.05-2.69)	0.77 (0.34-1.75)	2.06 (0.63-6.78)
<b>Asia</b>	<b>2.43</b> ** (1.41-4.21)	<b>0.24</b> * (0.09-0.66)	<b>0.50</b> * (0.27-0.94)	0.65 (0.23-1.83)	1.76 (0.82-3.74)	1.27 (0.68-2.35)	1.64 (0.58-4.58)
* p <0.05 ** p <0.005 *** p <0.0005							

**Table 3.** Outcome of the ER contact among groups

OddsR (95 % CI)	Voluntary admission	Compulsory admission	Referral to outpatient
<b>Age</b>	<b>0.99 **</b> (0.99-1.00)	0.99 (0.99-1.00)	1.00 (0.99-1.00)
<b>Female gender</b>	<b>0.82 **</b> (0.72-0.94)	1.04 (0.80-1.35)	<b>1.28 ***</b> (1.13-1.46)
<b>Italy</b>	1.15 (0.95-1.38)	1.12 (0.78-1.60)	<b>0.83 *</b> (0.70-0.99)
<b>Central Europe</b>	<b>2.26 *</b> (1.13-4.94)	1.58 (0.46-5.44)	<b>0.25 *</b> (0.08-0.84)
<b>Eastern Europe</b>	0.84 (0.66-1.07)	1.07 (0.68-1.71)	<b>1.36 **</b> (1.10-1.69)
<b>North Africa</b>	<b>0.61 *</b> (0.41-0.92)	<b>0.22 *</b> (0.05-0.91)	<b>1.52 *</b> (1.05-2.21)
<b>S.S. Africa</b>	1.04 (0.66-1.66)	1.12 (0.54-2.33)	0.90 (0.54-1.52)
<b>South America</b>	1.01 (0.54-1.91)	1.03 (0.26-4.02)	1.25 (0.66-2.39)
<b>Asia</b>	0.92 (0.52-1.63)	0.64 (0.19-2.11)	0.47 (0.21-1.05)
<b>Psychosis</b>	<b>6.66 ***</b> (5.53-8.02)	<b>4.06 ***</b> (2.96-5.58)	1.08 (0.87-1.34)
<b>Mood disorders</b>	<b>1.26 *</b> (1.06-1.50)	<b>0.51 **</b> (0.33-0.78)	<b>3.35 ***</b> (2.80-3.99)
<b>Anxiety disorders</b>	<b>0.19 ***</b> (0.14-0.25)	<b>0.07 ***</b> (0.02-0.19)	<b>3.21 ***</b> (2.66-3.88)
<b>Substance-related disorders</b>	1.05 (0.82-1.33)	1.15 (0.71-1.86)	0.81 (0.62-1.06)
<b>Psychomotor agitation</b>	<b>2.13 ***</b> (1.71-2.66)	<b>3.04 ***</b> (2.13-4.33)	1.04 (0.80-1.36)
<b>Attempted suicide / Self harm</b>	<b>4.23 ***</b> (3.49-5.12)	1.05 (0.68-1.64)	1.07 (0.86-1.34)
* p <0.05 ** p <0.005 *** p<0.0005			



Secondly, a more difficult access to specialist services (Commander et al. 1999, Burnett et al. 1999) (and to pharmacological treatment, as well), deriving from cultural or socio-economic or language barriers, may significantly delay search for care and lead these patients to seek for help in a worse clinical situation (Morgan et al. 2004). The higher prevalence of psychomotor agitation in some of these patients (more often reported without any other specification) seems to confirm the presence of a more severe and less communicable illness. Moreover, the fact that many of these patients were referred to the psychiatrist for improper reasons support the hypothesis that language difficulties (Kirmayer et al. 2007) or perceived discrimination (Cochrane 1996) may have a negative impact on access to care. In this situation, the ED is supposed to be the most important way of access to mental health services for immigrants (Turner et al. 1992, Cole et al. 1995).

Another possible explanation is that the Italian origin of the majority of clinicians may have affected our results with a culturally-determined diagnostic bias (Anglin and Malaspina 2008, DeCoux Hampton 2007). Indeed, a different psychotic pattern has been hypothesized for some black and minority ethnic groups (Strakowski et al. 1996, Arnold et al. 2004, Littlewood and Lipsedge 1981, Ndeti 1988, Johns et al. 2002), which may limit the capacity of the clinician to discriminate between affective and non-affective psychotic symptoms (Strakowski et al. 2003, Trierweiler et al. 2000, Neighbors et al. 2003).

A reduced probability of being referred to the ED after an attempted suicide or an act of deliberate self-harm was also found for Sub-Saharan patients, a finding which deserves further examination. A recent review (Bhui et al. 2007) has evidenced a reduced rate of mental disorders and a higher rate of impulsive and "reactive" acts among South Asian and Caribbean patients who had committed self-harm (Bagley and Greer 1972, Burke 1976). Furthermore, analyzing a sample of patients with psychosis, McKenzie et al. (McKenzie et al. 2003) found that first-generation immigrant patients of Caribbean origin had a lower risk of suicidal behavior than British Whites.

No significant differences were found in terms of treatment delivery between Italians and foreign nationals, except for a higher probability of outpatient service referral for Eastern European and North African patients. Being the first to come to Italy in the late eighties, these groups have a longer history of integration and probably a more direct access to specialist services. Conversely, patients from Central Europe, whose stay in Italy is more likely to be brief and not due to migratory reasons, were more frequently admitted to a psychiatric ward, probably because of a more severe condition. The higher rate of compulsory measures that has been shown, especially in the United Kingdom, for some ethnic and minority groups (Bhui et al. 2003, Morgan et al. 2005) was not confirmed. However, other factors, as the quality of social and family network, or the way patients had come to the ED (e.g. police referral) were not considered.

The primary aim of this study was to provide a naturalistic view of psychiatric consultations in an Emergency Room setting, reproducing the simple

operational criteria which guide the diagnostic and decisional process in this context. For this same reason, one of the main limitations of this study is represented by the use clinical diagnosis. Nevertheless, standardized assessment is difficult to apply in an emergency situation, whose purposes are triage, containment and referral (Mulder et al. 2005), and prior studies appear to indicate that diagnoses made by clinicians in the psychiatric emergency service setting are highly reliable (Warner and Peabody 1995). Excluding subjects who had repeatedly accessed to the Psychiatric Emergency Service could have affected the generalizability of our results, since these patients, especially frequent repeaters, show different diagnostic and social characteristics (Ledoux and Minner 2006). Further, our division among groups may be arbitrary, but currently there are no accepted classifications for ethnic origin (A.P.A. 2002). An additional limitation may be represented by the absence of socio-cultural variables: consequently, any hypothesis of different risk profile for immigrant patients should be regarded as a mere suggestion for future research projects. On the other hand, our sample includes also non-resident and unregistered immigrants, reducing possible selection-bias found in other studies based on first aid settings (Gaddini et al. 2008).

We still have few information about the specific needs of immigrants in terms of mental health care, and further steps should be taken in this direction before coming to any conclusion. However, though previous research have showed no differences among distinct groups of immigrants in healthcare utilization (Carrasco-Garrido et al. 2007, Muennig and Fahs, 2002, Muennig et al. 2006, Norredam et al. 2007, Cots et al. 2007), our findings suggest that immigrants should not be considered as a homogeneous group in their approach to Mental Health services. Finally, our results may also support the view of some Authors that the diagnostic criteria for some psychiatric disorders, including schizophrenia, should be revised in a multi-cultural context (Hickling et al. 1999, Sohler and Bromet 2003).

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