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# **Suicidal Behaviors in Patients Admitted to Emergency Department for Psychiatric Consultation: A Comparison of the Migrant and Native Italian Populations Between 2008 and 2015**

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Additional information is available at the end of the chapter

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## **Abstract**

In recent decades, Italy has become a desirable destination for immigrants. In 2014, five million people (8.2% of the population) were migrants (regular/irregular, documented/undocumented). This study looks at psychiatric health, an important feature especially for first-generation migrants and compares the new settlers with the native Italians. It should be noted that the organization of mental health services in Italy strongly relies on outpatient services, while the psychiatric wards, within the general hospitals, usually accommodate patients in acute phases of their disorder. Nonetheless, migrants' first contact often happens in a psychiatry ward when they are in a severe and acute psychopathological condition. Research methods: Quantitative and qualitative; longitudinal research using official statistical and clinical data obtained from records of a public hospital as well as information obtained through professional interview. Results: In relation to mental health, we found that the migrant patients referred for psychiatric consultation to the emergency department (ED) setting were younger, less frequently treated by psychiatric outpatient services, more commonly going to the ED for self-injury and presenting with symptoms of substance abuse and alcohol-related disorders. The native Italian population was older, more frequently retired and/or invalid, more frequently already treated by psychiatric outpatient services for any kind of psychiatric symptoms. Conclusion: The comparison of the sociodemographic and clinical features of immigrants and Italians referred for psychiatric consultation in the ED highlighted some differences. Implications are discussed in the light of the existing literature.

**Keywords:** Italy, regular (documented) and irregular (undocumented) immigrants, native Italian population, suicidal behaviors, emergency department (ED), psychiatric consultation, Italian National Institute of Statistics, National Health Service, Community Mental Health Center

## 1. Introduction

### 1.1. Migration and mental health

Migration is the process by which an individual moves from one cultural context to another, in order to settle for a long period of time or lifelong [1]. Migration can occur en masse or individually; people who emigrate for economic or academic reasons usually move alone and then are followed by their families, while those who emigrate for political reasons typically move in mass, with or without their own families [2].

The process of migration entails three phases: premigration, which includes the decision to migrate and the preparation for it; the actual migration, that is, the physical transfer of the person from one place to another; and post-migration, defined as the process of migrants' integration in the new social and cultural context of the host country, where new rules and roles have to be learned [2]. Obviously, this is a simplification, and the migration process and the experiences might significantly vary from person to person [1].

Each phase of the migration process may represent a stressor eventually leading to an increased risk of developing psychiatric symptoms or disorders, including depression, anxiety, post-traumatic stress disorder, addiction to alcohol and drugs, loneliness, hopelessness and suicidal behaviors [2]. Overall, migrants might have higher rates of psychopathology than the host populations, due to the exposure to the stress of the migrating process, which may include one or more of the following: the end of the links with their country of origin, the loss of social status and network, a sense of inadequacy because of language barriers, unemployment, financial problems, a sense of not belonging, feelings of exclusion and loss of interest in entering into a relationship with others. Migrants might experience a condition similar to bereavement, caused by the loss of their previous social network, relationships and culture. Language (especially colloquial language and dialect), attitudes, values and social support networks are missed the most. While painful feelings for these losses are a natural consequence of migration, when these feelings turn into a clinically significant, long-lasting distress or impairment, professional support may be necessary [3].

### 1.2. Migration and suicidal behavior

Migrant status may represent a risk factor for suicidal behavior, which is an important challenge in migrants' mental health care [4, 5]. Many authors observed that suicide rates increased among migrants and ethnic minorities [4, 5], probably in relation with some risk factor for suicidal behaviors, which are intrinsic to the migrant condition, such as poverty, war, traumatic experiences, political repression, torture, experiences of discrimination and marginalization in the host country. These stressors might act as triggers for a condition of

vulnerability [6, 7]. However, migrants are also likely to be exposed to protective factors, like strong family networks or protective cultural or religious traditions, beneficial to overall mental health [7].

Suicide rates vary from country to country, and there seems to exist no generalizable pattern of suicide in migrants [5]. Suicide rates among migrants tend to follow those of their country of origin, showing a significant and positive correlation between the two values; in other words, at least for the initial period they spend in the host country, migrants seem to "bring along" their suicide risk [8–12]. Most of the research was performed in the United States, but the same type of evidence has been obtained in other host countries, such as Austria, Australia, Canada, Sweden and the United Kingdom [12, 13]. The similarity of suicide rates with those of the country of origin was also found in second-generation migrants [12–14] and for suicide attempt rates [3]. The continuity highlighted by the correlation with suicidality in the migrants' countries of origin may be understood from either a cultural or a genetic perspective. However, the results in this field are mixed, and while a recent review concluded that, overall, most migrant groups do not have an increased suicide risk relative to the local-born population, with some even experiencing substantially lower risks [15], another one reported higher rates of suicidal behaviors among migrants compared to host populations, which is likely due to difficulties in the acculturation and integration process [3].

An Austrian study found the lowest rates for suicidal behaviors among Turkish migrants and the highest among the Japanese, consistent with the rates of both countries of origin and with those observed in other host countries, for instance, the United States [12]. A similar trend was found in one of the studies mentioned above, which involved 10 European countries: Turkey, Switzerland, Belgium, Finland, Israel, the Netherlands, Italy, Sweden, Estonia and Germany. In this survey, the highest rates of suicide attempts among migrants generally corresponded to higher rates of suicide in the country of origin, and there was an overlap between the rates of suicide attempts of the same ethnic group in different host countries [3]. Similarly, a meta-analysis of 33 studies about the suicide rates in migrants from almost 50 nationalities, in 7 host countries (Australia, Austria, Canada, England, the Netherlands, Sweden and the USA), supported the strong correlation between migrants' suicide rates and those of their countries of origin [12].

In most studies conducted in Europe, America and Australia, the highest risk of suicide was found in migrants from Northern and Eastern Europe, and the lowest in those from Southern Europe and the Middle East. A further complicating issue is the possibility that suicide rates may vary in relation to the country of origin on the one hand, but also according to gender, on the other. For instance, in migrants from Asian countries, the risk of suicide seems generally low for men but appreciably higher for women [2, 3, 8, 13, 16–18].

The high suicide rates among migrants from Northern and Eastern Europe might be related to the high alcohol consumption typical of these countries. For example, Finnish migrants who died of undetermined causes in Sweden tended to have high alcohol levels in their blood [29]. A similar trend was found in Russia, where suicide rates related to alcohol abuse are very high, and among Russian migrants who died by suicide in Estonia [8].

The low rates of suicide among migrants from Southern Europe, the Middle East and Asia may be due to some protective factors, such as the strong influence of traditional values,

family and religious beliefs. These countries are more collectivist and have strong family ties and group identity outside their country of origin. Both in Catholic and in Muslim countries, religion may be a strong deterrent to suicide, which is considered as a sin in the Catholic religion and as *haram*, or forbidden, by the Islamic law (*sharia*) [20]. The protective role of religion could also be enhanced by the ties with the religious community, which might represent a strong source of social support and sense of belonging [21, 22].

Migration exposes to mental health-related risks not only the actual migrants but also their families who remained in the country of origin. For example, it has been observed that the next of kin of Mexican migrants in the United States were at greater risk of suicidal ideation and suicide attempts than Mexicans without a family history of emigration. Emigration could weaken family ties, lead to feelings of loneliness and insecurity, and thus increase the risk of suicide also among family members who remained at home [23].

### **1.3. Italy and migration**

In recent decades, Italy has undergone major socio-political changes that have deeply influenced the life of the country and its inhabitants. Like Ireland, Spain and Portugal, Italy in the last century was a country of emigrants. Anyway, Italy has currently become a desirable destination for migrants, who often come as refugees in poor health conditions, with the hope of finding "heaven" [24, 25]. Because of its position, Italy is now a disembarkation country for migrants sailing from North Africa across the Mediterranean Sea, as well as a destination for those coming from Eastern Europe. Please note that from now on, we will use the word "migrant" to mean both foreigners and naturalized people: the first are individuals without Italian nationality, while the second are those born abroad, who acquired Italian citizenship [26].

At the end of year 2014, 5 million out of the 60.8 million inhabitants in Italy (8.2%) had a foreign citizenship. Non- European Union (EU) foreigners holding a residence permit in Italy on 1 January 2015 were 3.929.916, with the following being the most represented countries of origin: Morocco, Albania, China, Ukraine and Philippines [27]. ISTAT (Istituto Nazionale di Statistica, National Institute of Statistics) data report an approximately 63% increase of the migrant population in Italy from 2008 to 2015 (from 3 to 4.9 million) [27]. This increase was from 284.191 migrants in 2008 to 425.523 in 2014 in Piedmont [23] and a similar trend was observed in the province of Novara (from 25.088 = 6.9% of the total population in 2008 to 37.453 = 10.1% in 2014). The largest migrant communities included the Moroccan, Albanian, Romanian and Ukrainian people [28].

#### *1.3.1. The Italian legislation about the healthcare needs of migrants*

Current Italian legislation about the healthcare of foreign citizens [19] requires that migrants legally residing in Italy or having ongoing regular working activities register for the National Health Service. These migrants share the same treatment options, the same rights and duties as Italian citizens, but it should be emphasized that also irregular (undocumented) migrants (without a residence permit) are offered and granted urgent or essential healthcare in outpatient and inpatient facilities, as well as preventative health programs. When irregular (undocumented)

migrants ask for medical assistance, no authority will be notified. An exception is made relating to clinicians' obligations concerning crime notification. In 2010, the "Integration Agreement" and "Integration Plan" of the EU have been adopted to enhance migrants' integration, including measures to promote access to social and health services through advertisement, cultural mediators, as well as training for health and social workers. [30].

### 1.3.2. Migrants and mental health services

Overall, migrants tend to access mental health services less than the native population [31, 32]. Economic factors, a state of irregularity, poor understanding of local language, differences in cultural background and in the expression of mental distress may hinder migrants' access to mental health facilities [2, 33, 34].

The organization of mental health services varies in different countries. In Italy, psychiatric care strongly relies on outpatient services, while the psychiatric wards within the general hospitals accommodate patients during the acute phases of their disorder, usually for short periods of time. A recent study [35] found that migrants and natives sharing similar pathways to access a Community Mental Health Center (CMHC) in Northern Italy, although migrants showed a higher frequency of treatment dropout. Migrants are more likely to turn to the hospital in the first place to seek help; therefore, their first contact with mental health often happens in a psychiatry ward in the general hospital [36–38].

In a previous research [39], we found that, compared to native Italians, migrants referred for psychiatric consultation in the ED setting were younger, less frequently treated by psychiatric outpatient services, more commonly attending emergency services for self-injury, and presenting with symptoms of substance abuse and alcohol-related disorders. Regarding intervention received in the ED (including medications) and outcome of the psychiatric consultation, we found several differences between Italian natives and migrants [39, 40].

The aim of the current study is to expand our previous research, gathering a larger sample for the migrant and native population. Furthermore, we aimed to compare the sociodemographic, clinical and treatment features during and after a psychiatric consultation in the ED, with a specific focus on suicidal behaviors.

## 2. Methods

### 2.1. Study setting

This research was performed between 2006 and 2015 in the emergency department (ED) of the Maggiore della Carità Hospital, Novara, Italy, which has a high specialization ED, treating about 60,000 adult people per year. The Maggiore della Carità Hospital is the second largest general hospital in Piedmont and the main hospital for all North-Eastern Piedmont; its catchment area is representative for the whole region. In the ED of our hospital, all acute patients are assessed by the emergency medicine physician according to a priority code applied by the nurse through a triage evaluation. The emergency physician can request

a consultation with other specialists, such as psychiatrists, after the patients' preliminary assessment, according to the patients' clinical features and according to the hospital guidelines for the ED [40].

## 2.2. Sample

We collected data about consecutive patients assessed in the ED of the Maggiore della Carità Hospital, who were referred for psychiatric assessment after ED triage. The study period was from 1st January 2006 to 31st December 2015. From 1st January 2006 to 31st December 2007, only data for migrant patients (regular/irregular, documented/undocumented;  $N = 113$ ) were available. From 1st January 2008 to 31st December 2015, data were available for all consecutive patients assessed in the ED (total  $N = 3780$ ; immigrants  $N = 420$ ). No exclusion criteria were applied except for age being  $<16$  years, because in our country, these patients are treated by a separate pediatrics ED.

An experienced psychiatrist assessed patients by performing a clinical interview, including the assessment of suicidal intent, suicidal behaviors and attempts. The psychiatrist filled in a data sheet for each patient, reporting demographic data and clinical features. Moreover, variables relating to the ED access were recorded. This research project was approved by the Institutional Review Board of the Università del Piemonte Orientale as part of the research duties of the Psychiatry Institute.

## 2.3. Statistical analysis

Migrant patients recruited from 2006 to 2015 were analyzed using descriptive statistics. During this period of time, 3780 people receiving a psychiatric consultation in the ED setting from 2008 to 2015 were subdivided into two groups: migrants and Italian natives. Descriptive statistics were performed using frequencies, percentages, frequency tables for qualitative variables, mean using standard deviation (SD) and min-max values for quantitative variables. The Chi-squared test was used to evaluate the differences in proportions between groups (Italian natives/migrants). The covariates included in the final model were selected through the Hosmer and Lemeshow procedure, by inserting variables with a univariate  $p$  value  $<0.25$  as the main criterion [41]. Results are expressed as odds ratio (OR) with 95% confidence intervals (95% CI). Statistical significance level was set at  $p$  value  $<0.05$ . Statistical analyses were performed with STATA 11 [42].

## 3. Results

During the 10-years period from 1st January 2006 and 31st December 2015, 533 migrants were assessed in the ED. In **Table 1**, we summarized details and statistically significant differences in the variables assessed between regular/documentary and irregular/undocumented migrants recruited from 2006 to 2015. The distribution of the migrants' area of origin was the following: Europe 39.2%, Africa 28.8 %, Asia 14.7 %, and Central-South America 17.3%.

		Residence permit No % (N)	Yes % (N)	p <sup>§</sup>
<b>Health insurance card</b> (N = 502)	No	100.00 (26)	21.59 (103)	<0.001
	Yes	0.00 (0)	78.41 (374)	
<b>STP code (N = 129)</b>	No	8.33 (2)	100.00 (106)	<0.001
	Yes	91.67 (22)	0.00 (0)	
<b>Educational level</b>	Primary or middle school	4.17 (1)	30.00 (120)	0.006
	High school or degree	95.83 (23)	70.00 (280)	
<b>Occupational status</b>	Employed	4.17 (1)	34.10 (148)	0.010
	Unemployed	91.67 (22)	62.67 (272)	

<sup>§</sup>Statistically significant difference.

**Table 1.** Comparison between migrants with and without residence permit (2006–2015): statistically significant results.

From 1st January 2008 to 31st December 2015, 3781 patients underwent psychiatric assessment in the ED. Our sample thus constituted 1640 men (43.38%) and 2141 women (56.62%). A total of 3247 patients were Italian natives and 421 were migrants, matching the inclusion criteria described above.

The sociodemographic features of ED referrals undergoing psychiatric consultation, comparing results of Italian natives and migrants in the period between 2008 and 2015 are summarized in **Table 2**.

		Natives % (N)	Migrants % (N)	p
<b>Gender</b>	Male	43.46 (1411)	42.76 (180)	0.785
	Female	56.54 (1836)	57.24 (241)	
<b>Age class (years)</b>	≤18 <sup>§</sup>	3.51 (114)	7.14 (30)	<0.001
	19–44 <sup>§</sup>	45.22 (1468)	73.81 (310)	
<b>Living accommodation</b>	45–64 <sup>§</sup>	35.34 (1147)	16.43 (69)	
	≥65 <sup>§</sup>	15.93 (517)	2.62 (11)	
<b>Marital status</b>	Alone	27.06 (803)	22.77 (87)	0.073
	With parents or own family	66.36 (1969)	68.32 (261)	
		Community or social services	6.57 (195)	8.90 (34)
<b>Marital status</b>	Not married	61.18 (1800)	58.29 (218)	0.280
	Married	38.82 (1142)	41.71 (156)	

		Natives % (N)	Migrants % (N)	p
<b>Educational level</b>	Primary or middle school	28.23 (810)	25.28 (89)	0.244
	High school or degree	71.77 (2059)	74.72 (263)	
<b>Occupational status</b>	Employed	28.67 (900)	28.57 (112)	<0.001
	Unemployed <sup>§</sup>	51.64 (1621)	67.09 (263)	
	Retired/invalid <sup>§</sup>	19.69 (618)	4.34 (17)	
<b>Residence</b>	Novara	65.12 (2106)	67.78 (284)	<0.001
	Extra Novara <sup>§</sup>	33.06 (1069)	25.54 (107)	
	Homeless <sup>§</sup>	1.82 (59)	6.68 (28)	
<b>Residency permit (N = 503)</b>	No	–	4.86 (19)	–
	Yes	–	95.14 (372)	–
<b>Health insurance card (N = 502)</b>	No	–	22.51 (88)	–
	Yes	–	77.49 (303)	–
<b>STP code (N = 129)</b>	No	–	11.76 (2)	–
	Yes	–	88.24 (15)	–

<sup>§</sup>Statistically significant difference.

**Table 2.** Comparison of the sociodemographic between Italian natives and migrants (2008–2015).

**Table 3** shows the clinical features of referrals undergoing psychiatric consultation in the ED, comparing Italian natives and migrants (2008–2015).

	Natives % (N)	Migrants % (N)	p
<b>History of psychiatric disorders</b>	67.29 (2181)	43.20 (181)	<0.001
<b>Previous contacts with addiction services</b>	12.12 (392)	12.92 (54)	0.641
<b>Previous psychiatric admissions</b>	42.16 (1361)	22.43 (94)	<0.001
<b>Psychiatric admissions in the last 6 months</b>	19.05 (615)	11.22 (47)	0.001
<b>Under the care of a psychiatrist</b>	55.15 (1763)	28.61 (119)	<0.001
<b>Under the care of addiction services</b>	8.98 (281)	9.43 (38)	0.769
<b>Comorbidity with somatic disorders</b>	28.27 (911)	15.20 (64)	<0.001
<b>Admission to other wards (last 6 months)</b>	6.24 (201)	5.00 (21)	0.317
<b>Relationship problems</b>	36.24 (1175)	47.27 (199)	<0.001
<b>Treated with psychiatric medications</b>	60.35 (1954)	33.97 (143)	<0.001

		Natives % (N)	Migrants % (N)	p
<b>Symptoms</b>	Anxiety <sup>§</sup>	32.46 (1053)	23.99 (101)	<0.001
	Psychomotor agitation, excluding forms of intoxication, abstinence or dementia	9.74 (316)	9.74 (41)	
	Mood disorders and bipolar disorders	15.35 (498)	11.88 (50)	
	Schizophrenia and other psychotic disorders	9.09 (295)	7.84 (33)	
	Cognitive impairment (confusion, memory deficits, delirium)	6.50 (211)	1.66 (7)	
	Alcohol/substance intoxications or withdrawal symptoms <sup>§</sup>	10.17 (330)	19.00 (80)	
	Negative psychiatric examination <sup>§</sup>	14.24 (462)	24.70 (104)	
	Other (e.g. EPS, neurological symptoms) <sup>§</sup>	2.44 (79)	1.19 (5)	

<sup>§</sup>Statistically significant difference.

**Table 3.** Clinical features in Italian natives and migrants (2008–2015).

**Table 4** shows patterns of access and main psychiatric symptoms of referrals undergoing psychiatric consultation in the ED setting, comparing results of Italian natives and migrants (2008–2015).

		Natives % (N)	Migrants % (N)	p
<b>Reason for referral</b>	Any psychiatric symptom <sup>§</sup>	52.54 (1706)	44.66 (188)	<0.001
	Patients' request	8.96 (291)	7.36 (31)	
	Somatic symptoms in psychiatric patient <sup>§</sup>	3.05 (99)	1.19 (5)	
	Self-injury <sup>§</sup>	17.22 (559)	23.52 (99)	
	Alcohol/substance Intoxications or withdrawal symptoms <sup>§</sup>	5.20 (169)	10.21 (43)	
	Somatic symptoms	4.50 (146)	4.99 (21)	
	Other (e.g. neurological symptoms)*	2.86 (93)	2.61 (11)	
	Management difficulties	5.67 (184)	5.46 (23)	

		Natives % (N)	Migrants % (N)	p
<b>Accompanying person</b>	Nobody <sup>§</sup>	42.18 (1249)	37.06 (146)	<0.001
	Relatives, friends, educators	48.70 (1442)	48.98 (193)	
	Police	5.78 (171)	11.17 (44)	
	Doctor	3.34 (99)	2.79 (11)	
<b>Referred by</b>	Patient himself/herself <sup>§</sup>	50.53 (1623)	45.82 (192)	<0.001
	Relatives, friends, educators	23.60 (758)	26.97 (113)	
	Psychiatrist, addiction service	4.14 (133)	2.63 (11)	
	General practitioner, emergency medical service, other specialist <sup>§</sup>	15.94 (512)	11.46 (48)	
	Another specialist	0.72 (23)	0.48 (2)	
	Police <sup>§</sup>	5.07 (163)	12.65 (53)	
<b>Access time</b>	Night	42.25 (1371)	43.47 (183)	0.634
	Day	57.75 (1874)	56.53 (238)	
<b>Seasonality</b>	0 (April–September)	49.89 (1620)	51.78 (218)	0.466
	1 (October–March)	50.11 (1627)	48.22 (203)	
<b>Year</b>	2008 <sup>§</sup>	17.03 (553)	20.67 (87)	<b>0.022</b>
	2009 <sup>§</sup>	13.98 (454)	10.45 (44)	
	2010	13.27 (431)	15.44 (65)	
	2011 <sup>§</sup>	9.27 (301)	12.35 (52)	
	2012	17.80 (578)	16.15 (68)	
	2013	11.89 (386)	8.79 (37)	
	2014	7.45 (242)	5.94 (25)	
	2015	9.30 (302)	10.21 (43)	
<b>Congruity referral</b>	No	19.02 (558)	6.26 (46)	<0.001
	Yes	80.98 (2375)	93.74 (689)	
<b>Priority code</b>	White <sup>§</sup>	15.27 (448)	2.72 (20)	<0.001
	Green <sup>§</sup>	64.95 (1905)	45.99 (338)	
	Yellow <sup>§</sup>	18.99 (557)	49.12 (361)	
	Red <sup>§</sup>	0.78 (23)	2.18 (16)	

Note: \*Excluding substance-related and organic causes; other includes cognitive impairment, delirium, memory deficits, extra-pyramidal and neurological symptoms, etc.

<sup>§</sup>Statistically significant difference.

**Table 4.** Pattern of ER access and main presenting psychiatric symptoms of Emergency Room referrals undergoing psychiatric consultation: results of the comparison between Italian natives and migrants (2008–2015).

**Table 5** describes Axis I and Axis II diagnoses according to DSM-IV-TR criteria [43] in migrants and Italian natives (2008–2015).

		Natives % (N)	Migrants % (N)	p
<b>Previous known diagnoses</b>		51.09 (1658)	73.16 (308)	<0.001
<b>Axis I DSM IV-TR diagnoses</b>	Neurocognitive disorders	7.01 (91)	7.22 (7)	<b>0.031</b>
	Substance use disorders <sup>§</sup>	18.86 (245)	30.93 (30)	
	Schizophrenia and other psychotic disorders <sup>§</sup>	30.25 (393)	17.53 (17)	
	Mood disorders and bipolar disorders	17.94 (233)	21.65 (21)	
	Anxiety disorders	14.63 (190)	11.34 (11)	
	Somatoform disorders	5.77 (75)	6.19 (6)	
	Factitious disorders	0.38 (5)	0.00 (0)	
	Dissociative disorders	2.00 (26)	1.03 (1)	
	Eating disorders	2.23 (29)	1.03 (1)	
	Adjustment disorders <sup>§</sup>	0.92 (12)	3.09 (3)	
<b>Axis II DSM IV-TR diagnoses</b>	No	73.42 (2099)	81.77 (296)	<b>0.023</b>
	Yes	26.58 (760)	18.23 (66)	

<sup>§</sup>Statistically significant difference.

**Table 5.** Axis I DSM IV-TR diagnoses and Axis II DSM IV-TR diagnoses in migrants and Italian natives groups (2008–2015).

**Table 6** describes the results of the comparison between Italian natives and migrants (2008–2015) and the interventions and outcomes of the psychiatric consultations in the ED.

		Natives % (N)	Migrants % (N)	p
<b>Type of medication</b>	Benzodiazepines	78.18 (2372)	78.44 (302)	0.909
	Typical antipsychotics	21.19 (643)	21.30 (82)	
	Atypical antipsychotics	0.13 (4)	0.00 (0)	
	Benzodiazepines + antipsychotics	0.43 (4)	0.26 (1)	
	Other (e.g. anticholinergics)	0.07 (2)	0.00 (0)	
<b>Type of intervention</b>	PI + acute therapy	26.33 (855)	22.80 (96)	0.470
	PI + adjustment of ongoing treatment + acute therapy	5.79 (188)	7.36 (31)	
	PI + adjustment of the ongoing treatment	48.91 (1588)	50.36 (212)	
	Only psychiatric interview	8.90 (289)	9.03 (38)	
	PI and treatment start-up	10.07 (327)	10.45 (44)	

		Natives % (N)	Migrants % (N)	<i>p</i>
<b>Consultation's outcome</b>	Admission to psychiatric ward	3.30 (107)	4.99 (21)	0.449
	Brief stay/observation	0.28 (9)	0.00 (0)	
	Discharge	95.38 (3097)	94.30 (397)	
	Admission to other wards/assessment by other specialist <sup>§</sup>	0.28 (9)	0.24 (1)	
	Outpatient care	0.40 (13)	0.24 (1)	
	Voluntary discharge	0.37 (12)	0.24 (1)	
<b>Acute treatment</b>	Yes	89.10 (2887)	88.57 (372)	0.742
<b>Way of treatment</b>	Intravenous or intramuscular	5.86 (178)	3.10 (12)	0.026
	Orally	94.14 (2862)	96.90 (375)	

Note: BDZ: benzodiazepines; APS: antipsychotics; other includes for instance anticholinergics, flumazenil, etc.; PI: psychiatric interview; \*either voluntary or not.

<sup>§</sup>Statistically significant difference.

**Table 6.** Intervention delivered in the ER and outcome of the consultation of emergency room referrals undergoing psychiatric consultation: results of the comparison between Italian natives and migrants (2008–2015).

**Table 7** summarizes self-injury behaviors in migrants and Italian natives (2008–2015).

		Natives % (N)	Migrants % (N)	<i>p</i>
<b>Suicidal ideation</b>	Yes	21.80 (138)	21.57 (22)	0.958
<b>Self-injury behaviour</b>	Yes	19.49 (633)	24.23 (102)	<b>0.022</b>
<b>Short-circuit reaction</b>	Yes	79.62 (504)	78.43 (80)	0.783
<b>Type of self-inflicted injury</b>	Drugs ingestion	37.44 (237)	34.31 (35)	0.310
	Cutting injuries	60.82 (385)	65.69 (67)	
	Other (e.g. CO, caustic agents)	1.74 (11)	0.00 (0)	
	Benzodiazepines or barbiturates	36.69(62)	30.77 (8)	0.659
	Antidepressants or SSRI	6.51 (11)	11.54 (3)	
	Non psychiatric drugs	7.10 (12)	3.85 (1)	
<b>Type of drugs ingestion</b>	Polydrugs	48.52 (82)	50.00 (13)	
	APS	1.18 (2)	3.85 (1)	

**Table 7.** Self-injury behaviors in n migrants and Italian natives groups (2008–2015).

The results of the multivariate analysis performed to identify potential predictors of self-injury behaviors in the whole sample of patients admitted to the ED of the Maggiore della Carità Hospital in the period between 2008 and 2015 are presented in **Table 8**.

		Adjusted OR	95% CI	p
<b>Gender: female</b>	Female	1.60	(1.09–2.35)	<b>0.017</b>
<b>Age class</b>	≤18	1	-	-
	19–44	1.40	(0.44–4.51)	0.572
	45–64	1.30	(0.39–4.33)	0.672
	≥65	0.61	(0.15–2.57)	0.503
<b>Year</b>	2008	1	-	-
	2009	1.35	(0.49–3.72)	0.561
	2010	1.61	(0.61–4.24)	0.336
	2011	2.43	(0.88–6.73)	0.086
	2012	1.43	(0.53–3.90)	0.482
	2013	5.51	(2.28–13.29)	<0.001
	2014	14.03	(5.66–34.75)	<0.001
	2015	3.27	(0.96–11.13)	0.057
<b>Seasonality</b>	April–September	1	-	-
	October–March	0.56	(0.39–0.80)	<b>0.001</b>
<b>Nationality</b>	Italians	1	-	-
	Migrants	0.95	(0.50–1.82)	0.879
<b>Living Accommodation</b>	Alone	1	-	-
	With parents or own family	1.53	(1.00–2.35)	<b>0.048</b>
	Community or social services	1.63	(0.83–3.19)	0.155
<b>Marital status</b>	Not married	1	-	-
	Married	0.72	(0.48–1.07)	0.106
<b>Educational level</b>	Primary or middle school	1	-	-
	High school or degree	1.24	(0.84–1.84)	0.281
<b>Occupational status</b>	Employed	1	-	-
	Unemployed	0.82	(0.53–1.28)	0.386
	Retired/invalid	1.30	(0.67–2.56)	0.438
<b>History of psychiatric disorders</b>	Yes	0.61	(0.31–1.18)	0.141
<b>Previous contact with Addiction Services</b>	Yes	0.92	(0.45–1.87)	0.816
<b>Previous psychiatric admissions</b>	Yes	0.99	(0.60–1.65)	0.978
<b>Psychiatric admissions in the last 6 months</b>	Yes	1.04	(0.69–1.56)	0.844
<b>Under the care of a psychiatrist</b>	Yes	0.70	(0.41–1.19)	0.187

		Adjusted OR	95% CI	p
<b>Under the care of addiction Services</b>	Yes	0.94	(0.42–2.08)	0.877
<b>Co-morbidity with somatic disorders</b>	Yes	1.37	(0.92–2.05)	0.125
<b>Treated with psychiatric medications</b>	Yes	1.27	(0.80–2.04)	0.314
<b>Symptoms</b>	Anxiety	1	–	–
	Psychomotor agitation, excluding forms of intoxication, abstinence or dementia	1.11	(0.59–2.10)	0.747
	Mood disorders and bipolar disorders	1.48	(0.82–2.66)	0.188
	Schizophrenia and other psychotic disorders	1.62	(0.80–3.32)	0.183
	Cognitive impairment (confusion, memory deficits, delirium)	0.87	(0.35–2.14)	0.763
	Alcohol/substance intoxications or withdrawal symptoms	1.01	(0.49–2.07)	0.980
	Negative psychiatric examination	1.76	(0.95–3.24)	0.071
	Other (e.g. EPS, neurological symptoms)	0.40	(0.07–2.15)	0.286
<b>Psychiatric history</b>	Yes	1.41	(0.60–3.32)	0.433
<b>Axis I DSM IV-TR diagnoses</b>	Neurocognitive disorders	1	–	–
	Substance use Disorders	0.68	(0.27–1.68)	0.400
	Schizophrenia and other psychotic disorders	0.28	(0.11–0.70)	<b>0.006</b>
	Mood disorders and bipolar disorders	0.99	(0.43–2.30)	0.985
	Anxiety disorders	0.82	(0.35–1.93)	0.648
	Somatoform disorders	0.89	(0.34–2.34)	0.814
	Factitious disorders	0.57	(0.45–7.29)	0.667
	Dissociative disorders	1.74	(0.51–6.07)	0.368
	Eating disorders	0.27	(0.05–1.48)	0.130
	Adjustment disorders	0.17	(0.19–1.61)	0.123
<b>Axis II DSM IV-TR diagnoses</b>	Yes	1.82	(1.20–2.76)	<b>0.005</b>

**Table 8.** Potential predictors of self-injury behaviors in patients admitted to the ER of the Maggiore della Carità Hospital (2008–2015).

## 4. Discussion

### 4.1. Migrants' features according to regularity state

As shown in **Table 1**, we observed that only 78.41% of regular/documentated migrants had a health insurance card, while, as expected, no one of the irregular/undocumented migrants was in possession of it ( $p < 0.001$ ). As expected according to current laws, 91.67% of irregular/undocumented migrants had an STP code (Stranieri Temporaneamente Presenti). This is an anonymous and free Italian code that irregular/undocumented migrants can obtain in order to access health services. It is valid for 6 months and renewable and ensures equal access to all "urgent and essential" care for irregular/undocumented migrants [44].

Compared to irregular/undocumented migrants, regular/documentated migrants were more frequently employed, but self-report more relationship problems. The educational level was high in both groups. Employment and educational status are likely to have an impact on migrants' health outcomes [45] in the long term [44]. Significant differences were found between regular/documentated and irregular/undocumented migrants as far as the following variables are concerned: Being under the care of a psychiatrist and treated with psychiatric medications, which were both more common in the former than in the latter. Irregular/undocumented migrants were more likely to self-report a previous psychiatric diagnosis received in their country of origin. Some estimations about the 2002–2008 period show that 1.9–3.8 million irregular/undocumented migrants lived in the EU, with possible difficulty to access basic healthcare and social services [45]. Furthermore, there are concerns about irregular/undocumented migrants' vulnerability to physical and mental health risks, which may be worsened by difficult socioeconomic conditions and limited access to health services [46].

### 4.2. Sociodemographic features

In our study, the most represented migrants' area of origin was Europe, followed by Africa, consistently with the data reported by the ISTAT [26]. Consistent with our previous study [35], migrants assessed in the ED with a psychiatric consultation were younger than natives, with most of them belonging to the age classes <18 and 19–44 years, while most natives belonged to the age classes 45–64 years and >65 years. This finding is consistent with the demographic profile of the migrant population in Piedmont [47] and with another Italian study about emergency contacts of subjects who received a psychiatric diagnosis [48]. The educational status has been mentioned in the previous section and, as far as occupational status is concerned, migrants were more frequently unemployed than natives, and natives were more frequently retired and/or invalid. This result could be partly expected considering the differences of patients' ages. It also supports previous research performed in our country [49]. No significant differences were found between migrants and native Italians in relation to living accommodation, marital status and educational level.

### 4.3. Clinical features (case history)

We found several differences between migrants and native Italians. As expected, migrants were less frequently treated by a psychiatrist (including treatment with medication). Their history of psychiatric disorders and of previous admissions to a psychiatric ward during the

6 months prior to current consultation was also less frequent. Moreover, migrants were less likely than Italian natives to have a comorbid somatic disorder. This last finding probably depends on the differences we found in the patients' ages, with migrants being significantly younger than natives. As far as the other data are concerned, they may relate to possible barriers of migrants accessing Community Mental Health Centers, which is consistent with reporting their greater use of ED healthcare services. Interestingly, we found no difference between migrants and Italian natives regarding contacts with addiction services. As already pointed out, barriers may include service user views, difficulties in help-seeking, accessing services and using primary care, in trusting a clinician with a different cultural background, difficulties in acknowledging mental health problems and perceived causes of mental health problems [50]. The lack of differences in the use of addiction services may be the consequence either of migrants' specific problems in this field or of a perception of greater acceptability of this kind of mental health service.

#### **4.4. Features of ED referral**

Migrants were less likely than native Italians to access the ED by themselves, upon self-referral or indication of a clinician (for instance, a general practitioner [GP]). No difference between the two groups was found as far as being accompanied to the ED by family members or friends. On the other hand, compared to natives, migrants were more likely to be brought in and referred to the ED by the police. These findings are consistent with studies showing significantly lower proportions of self-referrals and a higher proportion of arrivals accompanied by the police in the Strong Migratory Pressure Countries (SMPC)-born group [37, 48].

The reason for psychiatric consultation included psychiatric symptoms (of any kind), more frequently experienced in Italian natives than in migrants, while migrants were more likely to receive a consultation because of self-injury and intoxication/withdrawal symptoms.

We can suggest some hypotheses for the reasons underlying the different pathways to psychiatric consultation in the ED. First, these may depend on the fact that migrants may access psychiatric services when their mental distress is severe, requiring urgent and coercive measures [36, 48]. Second, migrants' pattern of access to psychiatric consultation in the ED may also be explained by the fact that in Italy, urgent care in this setting is offered also to irregular/undocumented migrants, who are not allowed to attend the services of general practitioners (GPs) [49].

Symptoms assessment on behalf of the consultant psychiatrist yielded some significant differences between the two groups. Natives were more likely to show anxiety symptoms, cognitive impairment, delirium, memory deficits and neurological symptoms as main presenting symptoms. This greater frequency of cognitive impairment, memory deficits and neurological symptoms may depend on native's older age. Migrants were more likely to present with alcohol/substance related symptoms, or, interestingly, with a negative psychiatric examination (i.e. no psychiatric symptoms could be identified). The finding about negative psychiatric examination deserves a reflection and is discussed in the next paragraph.

As described in the previous section, no differences were found between migrants and natives in previous or current contact with addiction services, although we observed more frequently alcohol/substance-related symptoms among migrants. Maybe people with symptoms of alcohol

and substance abuse using psychiatric consultations in ED instead of addiction services fosters the hypothesis of migrants' greater problems in this field.

Last, compared to natives, migrants were more likely to self-report relationship problems, which suggest the importance of possible difficulties in creating a relational net in the host country or in cohabitation.

#### **4.5. DSM-IV-TR diagnoses**

##### *4.5.1. Axis I*

In native Italians, we found higher proportions of schizophrenia and other psychotic disorders than in migrants. On the other hand, in migrants, we found higher proportions of substance abuse and adjustment disorders than in natives.

The literature reports a high incidence of schizophrenia and other delusional disorders in migrants than in host populations [51]. An explanation for the differences could be the possible role of setting differences, for instance, ED psychiatric consultation vs. Community Mental Health Center. Our results are consistent with similar research performed in ED settings [48, 36].

As far as substance use disorders are concerned, this result seems to support what was hypothesized in the previous paragraphs. It is likely that alcohol and substance-related disorders are important in the migrant population, deserving a more specific and targeted approach. It can be anticipated that the results would reduce pressure on the ED because treatment could be redirected.

The frequency of adjustment disorders was higher in migrants than in natives, but was lower than could be expected. Maybe, as already pointed out, the specific setting of this study plays a role in these results; we cannot exclude that migrant patients with adjustment disorder may lack the acute symptoms which usually lead to an ED consultation.

##### *4.5.2. Axis II*

Axis II diagnoses, including personality disorders and intellectual disabilities, were less frequent in migrants than in natives. Previous reports suggested that in the ED setting, where it is not possible to establish a post-acute therapeutic relationship with the migrant patient, it is likely that personality disorders are underestimated [52].

#### **4.6. Intervention delivered in the ED and outcome of the psychiatric consultation**

Interestingly, and partially in contrast with a previous study we performed on a smaller sample [35], we found only one difference in relation to drug administration, with the intravenous administration less frequent in migrants than in native Italians. This result is currently difficult to explain. Overall, there was no statistically significant difference between migrants and natives in type of intervention received in the ED and outcome of the consultation. The finding of similar consultation outcomes in migrants and natives is interesting, considering that previous studies found that migrants were more likely than natives to be admitted to a psychiatric ward or to be monitored in the ED with a short stay and observation after psychiatric consultation in the ED [48, 53, 35]. The literature reports mixed results concerning this issue: Some

studies found a tendency to the underutilization of inpatient facilities among migrants, particularly if they were coming from more distant countries to the host country [54].

As described in the previous paragraph, according to our data migrants and natives assessed by a psychiatrist in the ED show significant differences in symptoms and diagnoses. Therefore, the overlap of the intervention offered in the ED and of the psychiatric consultation raises some questions about cultural barriers, which may hinder an accurate understanding (and treatment) of the migrants' symptoms. Barriers to self-disclosure or of a defensive attitude towards the psychiatrist may prevent migrants from receiving the most appropriate treatment for their symptoms. The high proportion of negative psychiatric examination in migrants and of relational problems may suggest either the need of a more thorough understanding of the migrant patients' problems in order to properly classify and diagnose them or the need to target these problems (in case they are not the symptom of a disorder) in a different setting than the ED. While the first option points to the need for more trans-cultural training for psychiatrists, the second points to the need for better education of migrants as far as the use of the healthcare system is concerned. As already emphasized, migrants and natives show different patterns of attending psychiatric care, with the former being more likely to apply to acute mental health services (e.g. psychiatry wards in the general hospital) rather than to Community Mental Health Centers (CMHCs) [38].

#### **4.7. Suicidal behaviors**

The request for psychiatric consultation for self-injury behaviors was more frequent in migrants than in natives, and actually, suicide attempts were more common in the first than in the latter group [40]. Despite this finding, no statistically significant difference emerged between the two groups as far as the intent to die and the type of suicide attempt (for instance, drug overdose, cutting, carbon monoxide intoxication, jumping from high places). Moreover, in our sample of patients admitted to ED and undergoing psychiatric consultation, the multivariate analysis did not find that being a migrant is a potential predictor of suicide attempt. We believe that these findings should be understood in the light of cultural differences when expressing distress and suffering. Furthermore, as already pointed out, migrants may seek psychiatric help only when their distress has reached a severity that requires urgent interventions [55, 48]. Lastly, as described in the first sections of this chapter, the literature on suicidal behaviors in migrants varies, but certain reviews have not found a higher suicide risk in migrants compared to the local-born populations [5, 15].

#### **4.8. Multivariate analysis**

We will not describe here in detail the results of the multivariate analysis performed to identify the possible risk and protective factors for self-injury behaviors, because it would be beyond the focus of this chapter. As expected, according to the epidemiology of suicide attempts, female gender was a risk factor (reference category: male gender) for self-injury behaviors. Despite such behaviors being more common in migrants than in native Italians, the multivariate analysis did not find any significant result in relation to nationality. This result is consistent with the existing literature, as described in previous sections, and suggests that other factors might mediate suicidal behaviors in the migrant populations. While the fact of being a migrant can be considered

a vulnerability factor for psychiatric symptoms and disorders, distress, and even suicidal behaviors, it is widely acknowledged that vulnerability should be considered in the context of a stress-vulnerability model, see for instance [56, 57]. Moreover, the mediating and protective role of coping skills, resilience, family and social support should not be overlooked [57].

During the 8-year period (2008–2015) of our study, we found that some years showed greater prevalence of suicidal risk than others. We found that the years 2013 and 2014 were positive predictors of suicidal behaviors, compared to 2008 (reference category), probably due to the global economic crisis and the concurrent political instability. The financial crisis, which began in 2007, 2008, had a negative impact on working conditions and people's health [58, 59]. Most studies in this field of interest supported an increased prevalence of mental health problems coinciding with the outbreak of the crisis [60]. Sometimes suicidal behaviors have been linked to economic reasons [61]. However, the literature also reports mixed results about the increase of suicide rates during economic crises. Some authors demonstrated an increase in the number of suicides during these times, especially in nations with lower levels of unemployment before the crisis itself [62]. Others found that the prevalence of suicide attempts and ideation had not increased significantly in 2011–2012 compared to other periods [63].

## 5. Limitations

We should highlight some limitations of the current research. Several differences among studies, starting with the definition of "migrants," hinder the possibility to compare results in the literature about migrants' mental health accurately [6]. The term "migrant" has many meanings, as discussed in our chapter and, unless more clearly defined, this makes comparisons difficult.

While the catchment area of our ED is representative of northern Italy, it is clear that a single-center design is also a limitation of our study, and that multicenter studies would increase the possibility to generalize results. Regarding suicide attempts, we should emphasize that, according to our ED guidelines, every suicide attempt is referred to the psychiatrist, but those patients who require life-saving treatments because they have committed a "violent" suicide attempt (as shooting or jumping from high places) are not visited by the psychiatrist in the ED setting. Moreover, we obviously did not include in our study those patients who did not seek help from the ED after a suicide attempt.

Last, since the information we gathered through the psychiatric interviews and the data sheets strongly relies on self-report, there is the possibility of a bias due to the fact that natives may feel more comfortable about self-disclosure than migrants.

## 6. Conclusions

In this chapter, we compared the sociodemographics, clinical and treatment features of Italian natives and migrants admitted to emergency department and receiving a psychiatric consultation in such setting. Our research started in 2006 and 2007 when we gathered data about regular/documented and irregular/undocumented migrants who attended psychiatric consultations. From

2008 to 2015, we gathered data for both migrants and native Italians. We found that migrants were less frequently treated by a psychiatrist (including treatment with medication), reported less frequently a history of psychiatric disorders and previous admissions to a psychiatric ward. Migrants were more likely than native Italians to be brought in and referred to the ED by the police and were less likely to present by themselves, but upon self-referral or indication of a clinician (for instance, a general practitioner) were accompanied by a member of the family and/or friend. Furthermore, migrants were more likely to receive a consultation because of self-injury and intoxication/withdrawal symptoms. Migrants were more likely than Italian natives to present with alcohol/substance related symptoms, or, interestingly, with a negative psychiatric examination (i.e. no psychiatric symptoms could be identified). As regards Axis I diagnoses, in migrants we found a lower proportion of schizophrenia and psychotic disorders, but higher incidence of substance abuse and adjustment disorders. Overall, there was no statistically significant difference between migrants and natives in the type of intervention received in the ED and outcome of the psychiatric consultations. The request for psychiatric consultation for self-injury behaviors was more frequent in migrants than in Italian natives, but no statistically significant difference emerged between the two groups as far as intent to commit suicide and the type of attempt. Moreover, the multivariate analysis did not find nationality as a risk factor for suicidal behaviors.

This research expanded our previous findings, which have been described elsewhere [35], and the larger sample size has allowed us to support some of the previous results, but opposes or refutes others. Overall, we believe that the current results add to the dearth of studies about migrants' use of mental health service in Italy, focusing on ED utilization.

Overall, the results of this study point to the need for a more thorough and trans-culturally informed approach to migrants' mental health [64]. While the treatment received by migrants and native Italians substantially overlaps, it might not target the actual needs and symptoms of the migrant population. Education on mental health for migrants (regular/documents and irregular/undocumented) to decrease actual or perceived barriers is needed.

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