

# THE OCCURRENCE OF DISEASES AND RELATED FACTORS IN A CENTER FOR ASYLUM SEEKERS IN ITALY

## POJAV BOLEZNI IN Z NJIMI POVEZANIH DEJAVNIKOV V CENTRU ZA PROSILCE ZA AZIL V ITALIJI

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### ABSTRACT

#### Keywords:

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**Introduction.** Italy is the main recipient of asylum seekers in the European region, and Sicily is their first point of arrival. This geographical position creates a large job for Health Authorities to identify and deal with the health of immigrants. This study evaluates the prevalence of disease among asylum seekers, assessing which are associated factors.

**Methods.** A cross-sectional study was conducted to analyse demographic and clinical data in an Acceptance Centres for Asylum Seekers from February 2012 to May 2013. All variables that were found to be significant on univariable analysis for the most frequent pathologies were included in a multivariable logistic regression model.

**Results.** Post-traumatic stress disorders with 17.4% and major depression with 7.3% were the most frequent diseases. The factors associated with post-traumatic stress disorders among asylum seekers were: major depression diagnosis (OR=2.91, p=0.004), Pakistan as a country of origin (OR=3.88, p<0.001), the largest number of medical visits (OR=1.02, p=0.033) and refugee status (OR=1.97, p=0.036). The variables linked with the diagnosis of major depression from the multivariable analysis were: suffering from post-traumatic stress disorders (OR=3.83, p<0.001), Pakistan as a country of origin (OR=3.45, p=0.004) and the highest number of visits to psychologist (OR=1.15, p<0.001).

**Conclusions.** The mental wellbeing of asylum seekers needs special attention, and interventions should be done to prevent the consolidation of psychiatric morbidity. A short psychological screening after the arrival might prove helpful here. Moreover, carefully designed longitudinal studies should be carried out when political recommendations try to change the organization of psychological and healthcare services.

### IZVLEČEK

#### Ključne besede:

duševno zdravje, osnovno zdravstveno varstvo, preventivno zdravstvo, depresija in spremembe razpoloženja, tesnoba, epidemiologija

**Uvod.** Italija je na prvem mestu med državami, ki sprejemajo prosilce za azil v evropski regiji, Sicilija pa je vstopna točka za priseljence. Ta geografski položaj prinaša veliko dela zdravstvenim organizacijam, ki morajo obravnavati zdravje priseljencev. Pričujoča študija prikazuje prevalenco bolezni in z njimi povezanih dejavnikov med prosilci za azil.

**Metode.** Izvedena je bila pregledna študija in analiza demografskih in kliničnih podatkov v sprejemnih centrih za prosilce za azil od februarja 2012 do maja 2013. Vse spremenljivke, ki so se izkazale za bistvene za univariantno analizo najpogostejših bolezni, so bile vključene v multivariantni logistično-regresijski model.

**Rezultati.** Posttravmatska stresna motnja s 17,4 % in velika depresivna motnja s 7,3 % sta najbolj pogosti bolezni. Dejavniki, povezani s posttravmatsko stresno motnjo pri prosilcih za azil, so bili: diagnoza velike depresivne motnje (OR=2,91; p=0,004), Pakistan kot država izvora (OR=3,88; p<0,001), največje število zdravstvenih pregledov (OR=1,02; p=0,033) in status begunca (OR=1,97; p=0,036). Spremenljivke, povezane z diagnozo velike depresivne motnje iz multivariantne analize, so bile: posttravmatska stresna motnja (OR=3,83; p<0,001), Pakistan kot država izvora (OR=3,45; p=0,004) in največje število obiskov psihologa (OR=1,15; p<0,001).

**Zaključki.** Duševno zdravje prosilcev za azil zahteva posebno pozornost, potrebne pa so intervencije za preprečevanje krepitve psihiatrične obolevnosti. Tu bi bilo lahko v pomoč kratko psihološko presejanje po prihodu. Potrebno bi bilo izvesti tudi natančno zasnovane longitudinalne študije, ko politična priporočila poskušajo spremeniti organizacijo psiholoških in zdravstvenih služb.

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## 1 INTRODUCTION

The migrants, especially refugees and asylum seekers, are at increased risk of several health problems and they have a rising gradual trend (1). In 2010 migrants numbered 232 million, which is equivalent to 3% of the world's population. This is an increase of 77 million in the last 20 years (2). In particular, in 2011 441,300 asylum applications were recorded in 44 developed countries, representing 73,300 claims (+20%) more than in 2010 (368,000) (3). Out of a total, the 38 countries in Europe received 327,200 claims, an increase of 19% compared to 2010.

Italy was one of the main recipients of asylum applications in the region (34,100 claims). After a soar in the number of new asylum applicants in 2008 (30,300 claims), people requesting international protection in Italy descended to a five-year low in 2010 (10,000 claims). Nevertheless, in 2011, this trend hit a peak with an increase of 240% in asylum applications registered. Tunisia became the main country of origin for asylum seekers in Italy with 3,500 claims registered (3).

Sicily, an Italian administrative region, is one of the first points of arrival of migrants in Italy. Its geographical position causes Health Authorities to have to make a major effort in short time to identify and deal swiftly with the health of the migrant population. Due to the long legal procedures, the majority of migrants live in the country for several years and their eventual acceptance rates are very low (30% in 2011) (3).

In Italy, the first contact with the health system for the migrants is a general practitioner, who acts as a "gatekeeper" by deciding whether a patient needs additional hospital care or referral to a specialist. Then migrants stay in one or more reception frameworks prepared by the Ministry of Interior: First Aid and Assistance Centers, Acceptance Centers, Acceptance Centers for Asylum Seekers (CARA), Identification and Expulsion Centers. They are held within these centers awaiting the outcome of administrative processes regarding their application to leave or remain in Italy.

Many asylum seekers are physically and psychologically traumatized by war, war-like conditions and political or ethnic oppression. Furthermore, acute and chronic healthcare problems may not only occur as the direct result of violence, but may also be due to the absence of functioning and reliable health care systems in their country of origin. This population, from other analyses is known to be vulnerable to respiratory, gastrointestinal and particularly to mental illness (4-7).

The aim of this study was to provide a basis to improve organization of social and healthcare services within the structures that temporarily host migrants in Sicily. This was reached evaluating the prevalence of disease among asylum seekers in a Sicilian CARA and assessing which

factors were associated with more frequent detected diseases. In addition, this manuscript focused on a topic in a setting which the scientific literature on non-communicable diseases is lacking (8).

## 2 METHODS

### 2.1 Study Design

A cross-sectional study of asylum seekers medical records was conducted in a Sicilian CARA from February 2012 to May 2013. A CARA is structure in which asylum seekers or who elude from the border control are sent to with no identity papers. This CARA could host a maximum of 260 asylum seekers in a day.

### 2.2 Observed Population

A total of 598 asylum seekers stayed in the CARA from February 2012 to May 2013. The inclusion criteria for migrants in this study were:

- the status of asylum seeker;
- the duration of stay in the CARA at least 2 days.

Consequently 17 asylum seekers were excluded from the study because they stayed in the CARA for less than 2 days, with a total of 581 asylum seekers under investigation.

### 2.3 Data Collection Procedure

Among the staff within the CARA there were two psychologists and three physicians. The CARA had also a medical records database that allows for the register information of each asylum applicant on arrival and during the other visits. Each staff member had a personal account to collect clinical and demographic information. Each asylum seeker has been recorded at least one visit by the physician during the period of stay in the CARA. This physician was a general practitioner who might establish to request a specialized consult or a higher level of care if asylum seekers suffered from more serious diseases. Moreover a visit to a psychologist and to a physician could be requested at any time by asylum seekers during their staying in the CARA.

### 2.4 Variables in the Analysis

The data collected concerned clinical and demographic information. The observed outcomes were diseases which affect asylum seekers: depression (MD), post traumatic stress disorder (PTSD), hypertension, diabetes, epilepsy and tuberculosis. Each specialist diagnosed diseases according to guidelines and these variables were treated as nominal ones (9-13).

The explanatory variables were demographic and medical characteristic that could explain variability: gender, study title, religion, country of origin, legal status, comorbidity,

age, length of stay in the CARA, body mass index, heart rate, number of medical and psychologist visits. The last six variables were considered as quantitative. All qualitative variables were treated just like nominal ones with the exception of study title treated as ordinal variable.

## 2.5 Data Analysis

The level of significance chosen for all analysis was 0.05 two-tailed. Qualitative variables were calculated in absolute and relative frequencies, while quantitative variables not normally distributed were represented as median (interquartile range, IQR). The normal distribution was assessed with the Shapiro-Wilk test. Differences in clinical and demographic characteristics were tested using Student's T-test for quantitative variables normally distributed, Wilcoxon-Mann-Whitney test on the equality medians for quantitative variables not normally distributed and X2 test for qualitative variables. It was also calculated the odds ratio (OR) and 95% confidence intervals (95% CIs). Next univariable logistic regression analysis was performed to examine the association of explanatory variables with MD and PTSD. In addition to other variables, MD and PTSD were treated as an explanatory factor (comorbidity) in the detailed analysis of the PTSD and MD respectively. All variables founded to be significant at univariable analysis with a significance level  $p < 0.05$ , were included in a multivariable logistic regression model. The goodness of fit was calculated for

each model and the model with the lowest log-likelihood ratio test was considered to have the best predictive ability. The adjusted OR (adj-OR) with 95% CI was also calculated for variables that were not distributed in the final model. The data analysis was performed with the software Stata/MP 11.2.

The authorization to processing data in an anonymous way and ethical approval were issued by the Prefecture, the peripheral arm of the Ministry of Interior; the prefecture managed the presence of asylum seekers in Italy.

## 3 RESULTS

### 3.1 Sample Characteristics

In this sample the male sex with 524 records (90.2%) was the prevalent one and the sample had a median age of 25 years old (IQR 9). Men asylum seekers were older (0.8 year) than women even if this difference was not statistically significant ( $p = 0.401$ ). The country of origin most common was Somalia (14.0%), followed by Eritrea (12.6%) and Pakistan (11.4%). Asylum seekers required a median number of 8 medical visits (IQR 14) and a median number of psychological visits of 4 (IQR 4) each one. The majority of asylum seekers have not received a response to their request for asylum 43.7%, followed by 118 asylum seekers (20.3%) who received a subsidiary permission, whilst 60 asylum seekers (10.3%) received a rejection to their request (Table 1).

Table 1. Asylum seekers characteristics.

| Total N=581                           |              |                                      |                  |
|---------------------------------------|--------------|--------------------------------------|------------------|
| Male [n(%)]                           | 524 (90.2)   | Medical visits [n, median(IQR)]      | 8 (2-16)         |
| Age [years, median (IQR)]             | 25 (21-30)   | Psychologist visits [n, median(IQR)] | 4 (2-6)          |
| Reported country of origin [n(%)]     |              | Body Mass Index [median (IQR)]       | 22.2 (20.7-24.3) |
| Bangladesh                            | 49 (8.5)     | Heart rate [bpm, median(IQR)]        | 70 (69-72)       |
| Eritrea                               | 73 (12.6)    | Study title [n(%)]                   |                  |
| Gambia                                | 51 (8.9)     | Unknown                              | 189 (32.5)       |
| Nigeria                               | 46 (8.0)     | Nothing                              | 103 (17.7)       |
| Pakistan                              | 66 (11.4)    | Primary school                       | 101 (17.4)       |
| Somalia                               | 81 (14.0)    | Secondary school                     | 80 (13.8)        |
| Others                                | 211 (36.6)   | High school diploma                  | 83 (14.3)        |
| Length of stay [days, median (IQR)]   | 148 (65-213) | Degree                               | 25 (4.3)         |
| Depression [n(%)]                     | 46 (7.9)     | Religion [n(%)]                      |                  |
| Post traumatic stress disorder [n(%)] | 101 (17.4)   | Muslim                               | 353 (60.8)       |
| Legal status [n(%)]                   |              | Catholic                             | 42 (7.2)         |
| Subsidiary permission                 | 118 (20.3)   | Evangelist                           | 10 (1.7)         |
| Humanitarian permission               | 76 (13.1)    | Hindu                                | 4 (0.7)          |
| Refugee status                        | 73 (12.6)    | Orthodox                             | 73 (12.6)        |
| Rejected request                      | 60 (10.3)    | Protestant                           | 10 (1.7)         |
| Unknown                               | 254 (43.7)   | Atheist                              | 1 (0.2)          |
|                                       |              | Unknown                              | 88 (15.1)        |

### 3.2 Prevalence of all Observed Outcomes

PTSD is observed in 101 (17.4%) asylum seekers and it was the most frequent disease. MD reported in 46 (7.3%) asylum seekers was the second diagnosis most frequent. The diseases less common in the sample were: hypertension with 4 cases (0.7%), epilepsy and diabetes with 3 cases (0.5%) each one. No case of tuberculosis was found among asylum seekers staying in the CARA.

### 3.3 Analysis of PTSD

Asylum seekers who suffered from PTSD were more Pakistani (45.8%) than other (13.8%) and received more frequent refugee status (27.4%) compared to the other legal status (15.9%). Those with PTSD were more frequent affected from MD than other (52.2% vs. 14.4%) (Table 2). Asylum seekers who suffered from PTSD had a median of 7 medical visits more ( $p < 0.001$ ) and a median of 3 psychological visits more ( $p < 0.001$ ) than others (data not shown in table). In univariable analysis odds ratios indicated that asylum seekers with PTSD were more likely to have a direct association in 9 of 12 explanatory variables investigated (Table 2).

**Table 2.** Results of univariable logistic regression analysis of association between post traumatic stress disorder and potential explanatory factors in an Italian center for asylum seekers.

| Explanatory factor    |          | N <sub>tot</sub> | N <sub>PTSD</sub> /N <sub>cat</sub> (%) | OR   | 95 % C.I. limits for OR |       | p-value |
|-----------------------|----------|------------------|---|------|-------------------------|-------|---------|
|                       |          |                  |   |      | Lower                   | Upper |         |
| Gender                | Females  | 57               | 9/57 (15.8%)                            | 1.00 |                         |       |         |
|                       | Males    | 524              | 92/524 (17.6%)                          | 1.14 | 0.54                    | 2.04  | 0.738   |
| Age (years)           |          | 25               |   | 1.03 | 1.00                    | 1.06  | 0.027   |
| Country of origin     | Other    | 515              | 71/515 (13.8%)                          | 1.00 |                         |       |         |
|                       | Pakistan | 66               | 30/66 (45.4%)                           | 5.16 | 2.99                    | 8.91  | <0.001  |
| Length of stay (days) |          | 148              |   | 1.01 | 1.00                    | 1.01  | 0.004   |
| Depression            | No       | 535              | 77/535 (14.4%)                          | 1.00 |                         |       |         |
|                       | Yes      | 46               | 24/46 (52.2%)                           | 6.49 | 3.47                    | 12.14 | <0.001  |
| Medical visits        |          | 8                |   | 1.05 | 1.03                    | 1.06  | <0.001  |
| Psychologist visit    |          | 4                |   | 1.10 | 1.06                    | 1.15  | <0.001  |
| Legal status          | Other    | 508              | 81/508 (15.9%)                          | 1.00 |                         |       |         |
|                       | Refugee  | 73               | 20/73 (27.4%)                           | 1.73 | 1.01                    | 3.07  | 0.036   |
| Hearth rate           |          | 70               |   | 1.07 | 1.01                    | 1.12  | 0.011   |
| Body Mass Index       |          | 22.2             |   | 0.99 | 0.94                    | 1.06  | 0.924   |
| Study title           | Other    | 478              | 83/478 (17.4%)                          | 1.00 |                         |       |         |
|                       | Nothing  | 103              | 18/103 (17.5%)                          | 1.01 | 0.57                    | 1.77  | 0.978   |
| Religion              | Other    | 228              | 22/228 (9.6%)                           | 1.00 |                         |       |         |
|                       | Muslim   | 353              | 79/353 (22.4%)                          | 2.70 | 1.63                    | 4.48  | <0.001  |

N<sub>tot</sub> = total number of observations, N<sub>PTSD</sub> = number of patients with post traumatic stress disorder; N<sub>cat</sub> = number of patients within the category of explanatory factor; ETC.

From multivariable analysis the factor strongly associated with PTSD was Pakistan like country of origin followed by MD diagnosis, refugee status and the largest number of medical visits (Table 3).

### 3.4 Analysis of Depression

Asylum seekers highly affected by MD originated more frequently from Pakistan (24.2%) than other nations (5.8%) and they received often refugee status (11.0%) compared to other legal status (7.5%). Those with MD were also affected by PTSD (23.8%) than other asylum seekers (8.7%) (Table 4). Furthermore asylum seekers with MD had a median length of stay 67 days longer ( $p=0.005$ ) than others, a median of 12 medical visits more ( $p < 0.001$ ) and a median of 5 psychological visits more ( $p < 0.001$ ) than others (data not shown in table). In univariable analysis explanatory variables directly associated with MD were: age, Pakistan as country of origin, length of stay, PTSD, medical and psychological visits (Table 4).

**Table 3.** Results of multivariable logistic regression analysis of association between post traumatic stress disorder and potential explanatory factors in an Italian center for asylum seekers.

| Explanatory factor        | OR       | limits for OR |       | p-value |        |
|---------------------------|----------|---------------|-------|---------|--------|
|                           |          | Lower         | Upper |         |        |
| Country of origin         | Other    | 1.00          |       |         |        |
|                           | Pakistan | 3.88          | 2.03  | 7.38    | <0.001 |
| Number of medical visits  |          | 1.02          | 1.01  | 1.04    | 0.033  |
| Depression                | No       | 1.00          |       |         |        |
|                           | Yes      | 2.91          | 1.40  | 6.03    | 0.004  |
| Refugee as a legal status | No       | 1.00          |       |         |        |
|                           | Yes      | 1.97          | 1.04  | 3.71    | 0.036  |

**Table 4.** Results of univariable logistic regression analysis of association between major depression and potential explanatory factors in an Italian center for asylum seekers.

| Explanatory factor    | N <sub>tot</sub> | N <sub>PTSD</sub> /N <sub>cat</sub> (%) | OR             | 95 % C.I. limits for OR |       | p-value |        |
|-----------------------|------------------|---|----------------|-------------------------|-------|---------|--------|
|                       |                  |   |                | Lower                   | Upper |         |        |
| Gender                | Females          | 57                                      |                |                         |       |         |        |
|                       | Males            | 524                                     | 41 (7.8%)      | 0.88                    | 0.33  | 2.33    | 0.801  |
| Age (years)           |                  | 25                                      |                | 1.06                    | 1.02  | 1.10    | 0.004  |
| Country of origin     | Other            | 515                                     | 30/515 (5.8%)  | 1.00                    |       |         |        |
|                       | Pakistan         | 66                                      | 16/66 (24.2%)  | 5.31                    | 2.70  | 10.46   | <0.001 |
| Length of stay (days) |                  | 148                                     |                | 1.01                    | 1.00  | 1.01    | 0.009  |
| PTSD                  | No               | 535                                     | 42/480 (8.7%)  | 1.00                    |       |         |        |
|                       | Yes              | 46                                      | 24/101 (23.8%) | 6.49                    | 3.47  | 12.14   | <0.001 |
| Medical visits        |                  | 8                                       |                | 1.05                    | 1.03  | 1.07    | <0.001 |
| Psychologist visit    |                  | 4                                       |                | 1.17                    | 1.11  | 1.23    | <0.001 |
| Legal status          | Other            | 508                                     | 38/508 (7.5%)  |                         |       |         |        |
|                       | Refugee          | 73                                      | 8/73 (11.0%)   | 1.28                    | 0.57  | 2.86    | 0.549  |
| Hearth rate           |                  | 70                                      |                | 1.06                    | 0.99  | 1.13    | 0.065  |
| Body Mass Index       |                  | 22.2                                    |                | 1.03                    | 0.96  | 1.11    | 0.406  |
| Study title           | Other            | 478                                     | 38/478 (7.9)   | 1.00                    |       |         |        |
|                       | Nothing          | 103                                     | 8/103 (7.8)    | 0.97                    | 0.44  | 2.16    | 0.950  |
| Religion              | Other            | 228                                     | 12/228 (5.3%)  | 1.00                    |       |         |        |
|                       | Muslim           | 353                                     | 34/353 (9.6%)  | 1.92                    | 0.97  | 3.79    | <0.061 |

N<sub>tot</sub> = total number of observations, N<sub>PTSD</sub> = number of patients with post traumatic stress disorder; N<sub>cat</sub> = number of patients within the category of explanatory factor; ETC.

Variable more strictly linked with the diagnosis of MD from the multivariable analysis was suffering from PTSD, followed by Pakistan as a country of origin and the highest number of visits to psychologist (Table 5).

**Table 5.** Results of multivariable logistic regression analysis of association between major depression and potential explanatory factors in an Italian center for asylum seekers.

| Explanatory factor            |          | OR   | limits for OR |       | p-value |
|-------------------------------|----------|------|---------------|-------|---------|
|                               |          |      | Lower         | Upper |         |
| Country of origin             | Other    | 1.00 |               |       |         |
|                               | Pakistan | 3.45 | 1.48          | 8.07  | 0.004   |
| Number of psychologist visits |          | 1.15 | 1.08          | 1.22  | <0.001  |
| PTSD                          | No       | 1.00 |               |       |         |
|                               | Yes      | 2.83 | 1.81          | 8.08  | <0.001  |

## 4 DISCUSSION

### 4.1 The Main Findings of the Study

Compared to refugees a decade ago, asylum seekers today are in more unfavourable conditions, as far as the prolonging of temporary residency with an uncertain outcome of the asylum procedure is concerned (14). In this study, the process of asylum seekers is being delayed due to nearly half of them being of unknown legal status (Table 1). The current asylum policies of Italy are comparable to those of most countries implementing mandatory detention. In these countries and in this study, psychiatric disorders are predominant (Table 1). Furthermore, asylum seekers suffering from PTSD are linked with origin from Pakistan to obtain the status of refugee and be to a greater use of medical services within the CARA (Table 3). For asylum seekers to have a case of depression is associated with origin from Pakistan and with greater use of psychological services within the CARA (Table 5).

### 4.2 Comparison with Other Similar Studies

The results of this study confirm earlier findings on asylum seekers that are a high-risk group with regard to mental health. Distress and psychiatric morbidity are known to be high in this population, with rates ranging from 20% to 40% for PTSD and from 30% to 70% for MD (15,16). This analysis drew on discharge records rather than on patient self-reports (like in comparable studies); the results are highly objective and reliable. This study detected small, non-significant gender differences in psychiatric disorders. This is in sharp contrast to PTSD studies in the general population, where women have a greater risk of developing PTSD than men (17).

MD and PTSD appeared to be risk factors for the onset of PTSD and MD, respectively, in this study. The common occurrence of the two diseases is recurrent in migrants (18). Indeed, refugees' pre-migration onset of PTSD and MD is consistent with the assumption that refugee flee their homelands in part to reduce their risk of distress. Whilst post-migration onset is best interpreted in light of data showing that immigrants' well-being generally gets worse with increasing time in host countries (6). Although refugees arrive in host countries with a higher likelihood of exposure to war trauma, PTSD, and depression than their voluntary compatriots, over time the risk of the first onset of those problems within the population is equalized, suggesting that they may be best served by similar mental health programs (18).

In this study, PTSD and MD are associated with Pakistan as country of origin. Several studies produce evidence that it is impossible to consider "migrants" as a homogeneous group in terms of the risk for mental illness, according to Murphy's hypothesis (19, 20). In this sense, psychosocial studies should be undertaken to identify those factors which may, under given conditions, imply an increased risk of psychiatric disorders and influence seeking psychiatric care (21). A previous study reveals the importance of psychosocial factors, in addition to education and employment status factors, on the psychological distress and, consequently, on mental health among Pakistani immigrants. This could be achieved through adopting a strategy that not only deals with better education and employment status but also with providing opportunities to bring them in contact with mainstream local society. In this way, this community will find a way to reduce the burden of decreased social support, or their distress level, by interacting and affiliating with the local society. Indeed, it has been reported that frequent interactions between immigrants and the hosting society has a positive impact on the mental health of immigrants, and vice versa (22).

In this study, PTSD was also associated with a major use of medical services in asylum seekers. This is in accordance with another study showing that asylum seekers had, on average, more than twice as many appointments with a doctor than a resident population (23). Furthermore, the annual healthcare cost increased with the number of psychiatric diagnoses, because asylum seekers with a psychiatric disorder reported significantly more appointments than those without. This also suggests that suffering from a mental disorder may increase the risk of comorbidity and healthcare costs (24). In fact, there was an increase in the annual cost incurred in the medical treatment of asylum seekers. This number was almost 1.8 times that of the comparable resident population (23). This may reflect the general stress that asylum seekers are facing while waiting for their destiny to unfold.

Research in community samples has shown that both pre- and post-migration adversities have a strong impact on mental health of asylum seekers (25). In particular, legal status, as demonstrated in this study, with refugee status, may play a crucial role in the lives of forced migrants, as it determines the presence of many other resettlement stressors (26). Indeed, unlike refugees, asylum seekers are threatened with repatriation on a daily basis, have no legal rights in a host country, are socially and economically marginalized, are forced to live in collective reception centres and have no rights to reunite with family members left behind. When asylum seekers obtain a refugee status, they may be unaware of the post-migratory stressors that they will face in the future, while trying to rebuild existence in a host society. In both cases, psychiatric care should be provided to asylum seekers suffering from PTSD to ensure complete integration into local society.

Furthermore, an independent factor associated with MD among asylum seekers is the number of visits to a psychologist. There are two reasons for this:

- With regards to asylum seekers, traditional medical notions of mental health were dissonant with individuals' self-concepts and culturally unacceptable, so they preferred psychological treatment.
- Qualified psychotherapy in the asylum seekers' languages is a service often not available, reducing the efficacy of psychotherapy treatment system and requiring a greater number of sessions to achieve the goal (21, 25).

In those cases, different cultural conceptions should lead to a greater collaboration between a psychologist and physician, in order to invite asylum seekers, often availing of the aid of the psychologist, to undergo a medical examination in order to diagnose a more serious underlying psychiatric illness early enough.

#### 4.3 Limitations and Strengths of the Study

The main limitation of the study was its focus on one single centre. The lack of studies in this setting justifies the realization of the work in only one CARA. Furthermore, this study was based on a retrospective evaluation, even if the use of CARA medical records reduced the possibility of bias.

The main strength of the study was the fulfilment of the study in a setting where asylum seekers stayed after their arrival for a period of time that could predispose to disease closely linked to the organization of services for migrants.

#### 4.4 Implications of the Study Results for Public Health in Italy and EU

In most countries, asylum seekers are not screened for mental health disorders at any point during the asylum procedure. Consequently, it is not surprising that recent findings on asylum seekers state that this population receives very little specific psychiatric treatment (27). Since the majority of the participants in our study, regardless of the length of their stay, were found to have symptoms of MD and/or PTSD, it is recommended that systematic screenings about depressive and anxious symptoms in asylum centres should be introduced as a standardized routine. A recommended supplementary political initiative would be to introduce a time limit for the stay at any asylum centre, because post-migration environment has considerable influence on mental health, regardless of prior traumatic exposures. Indeed, the level of affective social support in exile is an important determinant of the severity of disorders.

#### 4.5 Suggestions on Future Research in the Field

The findings in the study support anecdotal observations of other researchers, and highlight the concerns raised by health professionals about the adverse effects of detention on asylum seekers (28). Qualitative studies have suggested that psychological factors influencing mental health of detainees include feelings of hopelessness and a sense of injustice (24). Therefore, both the psychological impact of detention as well as factors relating to the detention environment may adversely affect mental health. Psychiatric disorders due to traumatic events experienced pre- and peri-migration strongly influence mental health after the arrival in the host country (26, 29). Although improvements in symptoms subsequent to release have been reported, and longer periods of detention were still associated with poorer mental health outcomes in 3 years following the release, few studies have investigated this issue.

## 5 CONCLUSIONS

The results of this study are in agreement with other studies suggesting that the mental wellbeing of asylum seekers needs special attention, and that interventions should be developed to prevent the consolidation of psychiatric morbidity. A short psychological screening after arrival might prove helpful here. Moreover, carefully designed longitudinal studies with unselected populations of asylum seekers should be carried out along with political recommendations to change the organization of psychological and healthcare services.

## CONFLICTS OF INTEREST

The authors declare that no conflicts of interest exist.

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## ETHICAL APPROVAL

The authorization to process data in an anonymous way and ethical approval were issued by the Prefecture, which was the peripheral arm of the Ministry of the Interior that managed the presence of asylum seekers in Italy.

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