

A dimensional approach to the psychopathology of migrants: a cross-sectional matched sample study

Corinna Pancheri, Valentina Roselli, Riccardo Serra, Roberta Giordani, Valentina Magliocchetti, Liliana Todini, Annalisa Maraone, Massimo Pasquini, Lorenzo Tarsitani, Massimo Biondi

Department of Human Neuroscience, Sapienza University of Rome, Rome, Italy

SUMMARY

Objectives

Moving to a foreign country, whether out of necessity, seeking refuge, opportunity or mere curiosity, makes the individual more vulnerable to mental disorders. Even in the same conditions, many factors contribute to make migrants more susceptible to this risk than the natives. Among many, these include linguistic and cultural differences. Unfortunately, these differences lead to a higher frequency of 'not otherwise specified' diagnoses in this part of the population. This limitation can lead to greater difficulties in therapeutic choices and epidemiological assessments. This study aims to enhance the clinician's resources by testing a trans-diagnostic, dimensional, psychopathological approach in the assessment of a group of migrants and a control group of natives referred to a psychiatric outpatient service.

Methods

The two groups of patients were matched for gender, age, categorical diagnosis and level of clinical severity. The SVARAD scale was used for the dimensional assessment, diagnoses were assigned according to DSM IV-TR criteria.

Results

A total of $n = 224$ patients, including cases ($n = 112$) and controls ($n = 112$), were recruited and agreed to participate in the study. The dimensions somatization, obsessiveness, and activation showed a significant difference between groups ($p = .018; .011; .004$, respectively). Given the same degree of severity and the same diagnosis, migrants with mental disorders showed less activation and greater somatization.

Conclusions

Cross-cultural aspects and language differences, as well as the same social status of "migrant", are certainly implicated in these differences. By taking these dimensional aspects into account, clinicians could achieve greater precision in the diagnostic process and determine a significant change in the care of this risk group.

Key words: migration, dimensional psychopathology, somatization, activation

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Correspondence

Lorenzo Tarsitani
Department of Human Neuroscience,
Sapienza University of Rome, Viale
dell'Università 30, 00185 Rome, Italy.
E-mail: lorenzo.tarsitani@uniroma1.it

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Introduction

Migration represents a highly meaningful life event and is related to a higher risk of poor mental health outcomes¹. Incidence of severe mental conditions is higher in migrant populations and ethnic minorities as compared to natives and ethnic majorities, especially with regard to psychotic spectrum disorders²⁻⁶. Differently, no conclusive evidence proves the same with regard to mood disorders with prevalence rates for migrants in some cases lower than in the host country⁷ and, in others, higher⁸. On the other hand, post-traumatic symptoms and distress are frequent, especially in

asylum seekers and refugees⁹. Beyond the categorical diagnosis, diagnostic tools developed in western countries may not be sufficient to detect specific aspects and symptoms of psychological problems in people grown in different cultural contexts¹⁰. As a result, there is a tendency in the clinical practice to mis-diagnose and over-use the “Not Otherwise Specified” (NOS) specification in migrant patients with blurred symptomatology that are, perhaps, not entirely understood through the language of classical taxonomic diagnostics^{11,12}. A precise, trans-diagnostic analysis is necessary in order to understand the psychopathology of such heterogeneous population¹³. Existing literature describing psychopathological characteristics of migrant populations often analyzed non-clinical populations¹⁴⁻¹⁸. Among research focusing on a dimensional analysis of mental distress, the *sadness* dimension is reported higher in migrants than in natives in some studies¹⁹, and equal in the two groups in others²⁰⁻²². The *aggressiveness* dimension has been reported as higher in asylum-seeking migrants exposed to conflict and persecution^{23,24} little research has investigated this in refugees. In the current study, we examined the mediating role of emotion dysregulation in the relationship between refugee experiences, trauma and living difficulties, while internalized anger results higher in the non-clinical migrant population regardless of the trauma suffered as compared to natives^{25,26}. *Somatization* is congruently reported as higher in the migrant population than in natives across studies²⁷⁻²⁹ leading to the consideration of this dimension as a strongly trans-diagnostic entity¹³.

The exploration of psychopathological dimensions, beyond categorical diagnoses, can be useful for better understanding of mental disorders. This is especially true for migrant populations where cultural background influences the manifestations of the underlying disorder. Although some research on a dimensional perspective on migrants' mental health exists, research on clinical populations is scant and inconclusive. Therefore, aims of this study are (1) to explore the psychopathology of a sample of migrants affected by a mental disorder from a dimensional perspective and (2) compare results with a control group of Italian natives with paired categorical diagnoses and severity of illness.

Methods

Sample

All migrants consecutively admitted to the migration psychiatry out-patient service from 2015 to 2018 were presented the study and recruited after giving their written informed consent. Inclusion criteria was being a “migrant” (defined as the one who migrated, that is a process of displacement from one country to another,

regardless of distance and causes³⁰. A control group of paired Italian natives was recruited between 2011 and 2017 in the out-patients service of General Psychopharmacology. Exclusion criteria were: (1) having any intellectual disabilities (2) presence of severe neurological diseases; (3) presence of severe medical conditions; (4) age < 18 years or > 80 years. The study design was reviewed and approved for ethical aspects by the Institutional Review Board of the Department of Neurology and Psychiatry, Sapienza University of Rome.

Instruments and procedure

Enrolled patients underwent a psychiatric examination including the collection of socio-demographic and anamnestic data. Migrants were also administered an ad hoc questionnaire for the collection of socio-demographic and migratory variables. This questionnaire aims at collecting the pre-migratory variables (age, country of origin, marital status, level of education, profession before migration), migratory (the date of departure, the reason for the migration) and post-migratory (the date of arrival in Italy, the length of stay, the presence of family members in Italy, the post-migration profession and the presence of under-employment). All patients were diagnosed according to the DSM-IV-TR criteria³¹.

The Scale for Rapid Dimensional Evaluation (SVARAD) was used for the dimensional evaluation of patients' psychopathology³². The SVARAD is a hetero-administered five-points scale consisting of 10 items (apprehension/fear, sadness/demoralization, anger/aggressiveness, obsessiveness, apathy, impulsivity, reality distortion, disorganized thought, somatic concern/somatization, activation). Each item is given a score from 0 to 4 (0 = absent; 1 = mild; 2 = moderate; 3 = severe; 4 = extreme) for a total maximum of 40 points. The scale provides a validated, simple and rapid tool for dimensional evaluation of patients. It has shown good psychometric characteristics in clinical settings similar to that of the present study³².

The Brief Psychiatric Rating Scale (BPRS-E) was used to assess the presence of symptoms and their severity³³. BPRS-E is one of the most widely used tools for assessing type, severity and change over time of psychiatric symptoms.

Data analysis

The pairing between the two groups was carried out considering an order of hierarchical priority of the variables: (1) gender; (2) categorical diagnosis according to DSM IV-TR³¹; (3) the psychopathological severity level calculated on the total SVARAD score (range of ± 4 points); (4) age (range of ± 10 years).

Data were analyzed using IBM SPSS statistical software (version 24.0). Descriptive statistical methods were used to trace the main socio-demographic and epide-

miological characteristics of the subjects, such as: age, sex, level of education, country of origin, profession before migration, profession after migration, length of stay in Italy, presence of under-employment and presence of family members in Italy. These data were presented in terms of proportion of the total of the sample, evaluating means and standard deviations. An ANOVA test was performed to calculate the significant differences between migrants and natives regarding age and SVARAD and BPRS total scores. We performed an exploratory analysis of the SVARAD differences between the two groups (migrants and natives) using the non-parametric U test of Mann-Whitney for independent samples. The correlations between quantitative variables (SVARAD items) were calculated with the Pearson correlation test with two tails (two-tailed).

Results

Descriptive statistics

A total of 112 migrant patients and 112 matched controls were included in the analysis. A total of 15 migrant patients were excluded due to lack of paired match. Table I shows the main socio-demographic variables of the group of migrants included in the study compared with the group of natives and the group of migrants excluded due to lack of pairing. The excluded group is younger, with a lower level of education and with a shorter length of stay in Italy than the sample included in the study.

Most migrants arrived in Italy for economic reasons, with a mean length of stay in Italy rather high with great variability between cases (103.3 ± 104.3 months). The control group shows a higher mean age and a higher level of education than the included group of migrants ($p = .007$). Most migrant patients reported not being under-employed and having family members in Italy. The largest group (25%) comes from Eastern European countries (mostly Romania, Moldavia and Albania), followed by the South-Saharan Africa group (23%, mostly Senegal, Cameroon and Gambia), the South Asians (17%, mostly Bangladesh and Sri Lanka), the Central and South Americans (10%, mostly Peru), the Middle East (9%), the North-Saharan Africans (9%), the South-East Asians (3%), the oriental Asians (2 patients from China) and the North American countries (2 patients).

Psychopathological analysis

BPRS-E and SVARAD mean total scores did not show significant differences between groups (SVARAD $p = .446$; BPRS $p = .785$). As shown in Table II the SVARAD dimensional scales showed between groups differences regarding *obsessiveness* ($p = .018$), *somatization* ($p = .011$) and *activation* ($p = .004$). No signifi-

cant differences were found with respect to the other items.

The correlation analysis between the SVARAD items of the whole group, highlighted the presence a positive correlation between anger/aggression and activation ($R^2 = 0.171$, $p < .001$) and impulsiveness and activation ($R^2 = 0.219$; $p < .001$), while a negative correlation was found between sadness/demoralization and activation ($R^2 = -0.002$; $p = .033$), and anger/aggressiveness and somatization ($R^2 = -0.02$; $p = .036$).

Discussion

In this article we present results from a cross-sectional case-control study comparing a group of migrants and a group of natives both affected by a mental health condition. The migrant group showed higher scores in *somatization* and lower scores in *activation* and *obsessiveness* compared to matched native patients. Female migrants had a lower score in *aggressiveness* and *impulsivity* compared to males. Having a family member in Italy was related to lower *aggressiveness* and higher *apathy* scores.

The coupling carried out between the 112 migrants and the 112 native controls, led to homogeneous results regarding diagnosis and severity of the condition. Indeed, the most frequent diagnosis were "NOS" across groups, underlining a similar 'classification uncertainty' of the symptomatology. Although age was a (low priority) criterion for matching subjects of this study, migrant patients were younger than natives. This is in line with the general trend of the catchment area of our outpatient services.

In line with literature on the subject, the migrant group showed higher *somatization* compared to their native counterpart^{13, 27-29}. Patients' *somatization* seems in relation to the presence of somatic symptoms with no organic component (e.g., pain) rather than to obsessive hypochondriac concerns about one's health and has been related to pre-migratory trauma and lack of social support³⁴. Compared to western countries, non-western countries show lower somatization³⁵. Our results are probably related to the cultural root of the sample studied and to the skill in language. Ability in spoken language and understanding of the local culture is critical in receiving specific, proper help and lack of this ability can lead to complications in the migrants' relation with potential sources of help³⁶. Rather than a symptom leading to a specific DSM diagnosis, *somatization* should be interpreted as an idiom to express mental distress or as legitimate and codified communication patterns to express suffering^{34,37-39}.

Activation was directly correlated to *aggressiveness* and *impulsivity* and resulted lower among migrant patients. The environment in which an individual grows modu-

TABLE I. *Socio-demographic characteristics of immigrants and native patients.*

Socio-demographic variables	Categories	Included migrants N = 112 N (%)	Natives N = 112 N (%)
Age		38.0 (± 12.0) y	42.71 (± 13.7) y (p = .007**)
Gender	M	70 (61.9)	70 (61.9)
	F	42 (37.5)	42 (37.5)
Instruction	None	8 (7.1)	1 (0.9)
	Compulsory school	46 (41.1)	33 (29.5)
	High school/degree	58 (51.8)	78 (87.4)
Marital status	Unmarried	50 (44.6)	-
	Married	35 (31.3)	-
	Cohabitant	8 (7.1)	-
	Divorced	16 (14.3)	-
	Widow	3 (2.7)	-
Occupation before migration	Student	14 (12.5)	-
	Farmer	2 (1.8)	-
	Labour	13 (11.6)	-
	Employee	20 (17.9)	-
	Self employed	9 (8)	-
	Odd-job	6 (5.4)	-
	Housewife	1 (0.9)	-
	Unemployed	35 (31.3)	-
	Missing data	12 (10.7)	-
Occupation after migration	Student	5 (4.5)	-
	Labour	2 (1.8)	-
	Employee	26 (23.2)	-
	Odd-job	19 (17)	-
	Housewife	2 (1.8)	-
	Unemployed	49 (43.7)	-
	Missing data	9 (8)	-
Length of stay in Italy (months)		103.3 (± 104.3) min: 1; max: 480	-
Reason for migration	Economic	92 (82.1)	-
	Forced (refugee/asylum seekers)	20 (17.9)	-
Post-migration under-employment	Yes	38 (35.8)	-
	No	68 (64.1)	-
Family members in Italy	Yes	53 (55.8)	-
	No	42 (44.2)	-

TABLE II. SVARAD items means and standard deviations with statistical analysis of the differences (Mann-Whitney U-test).

Group	Apprehension/fear	Sadness	Anger/aggressiveness	Obsessiveness	Apathy	Impulsivity	Reality distortion	Thought disorganiz.	Somatization	Activation
Natives	Mean	1.27	.87	.28	1.20	.65	.63	.22	.82	.81
	SD	.958	.991	.713	1.106	.946	1.107	.654	1.050	.844
Migrants	Mean	1.45	.71	.07	1.16	.50	.74	.29	1.11	.49
	SD	.706	.837	.259	.954	.723	1.072	.767	.971	.658
Differences	U	5494.500	6944.500	5624.000	6300.000	5940.500	6703.000	6541.500	7434.000	4990.500
	p	.083	.143	.018*	.952	.432	.295	.379	.011*	.004**

** significance level at 0.01; * significance level at 0.05.
SVARAD: Scale for Rapid Dimensional Evaluation

lates evaluation and reaction to emotional events⁴⁰. Our group of migrant patients showed low scores in these dimensions, outlining an internalizing profile. On the other hand, individualistic societies such as Europe, generally accept the externalization of anger and distress as a form of individuals' independence and freedom of self-expression⁴¹. Collectivist cultures (as in many non-Western countries) often discourage externalization as a form of detachment from the group/society^{41,42}. This hypothesis is in line with studies on non-clinical populations reporting lower levels of aggression in migrants than natives and the correlation between collectivism and reduced aggressiveness^{25,26}.

Overall, migrant patients tend to internalize their suffering and distress leading to higher somatization and lower activation, as opposed to native patients who tend to externalize their suffering leading to higher activation and lower somatization.

Limits

First, the sample of cases was composed of individuals with different original cultures united as a group by the act only of migration. Therefore, the high heterogeneity might limit generalizability of the results. Second, our study did not assess the actual presence of language barriers. Indeed, many patients speak Italian fluently, some can speak a language also operators can speak (e.g. English or French) some instead come to the clinic accompanied by a linguistic mediator. Therefore, we cannot test the language hypothesis. Another limitation is the diagnosis itself. We decided to have a focus on NOS diagnoses, which is obviously related to a degree of bias in the study.

Conclusions

Same categorical diagnosis can have very different outcomes in response to the same treatment protocols, especially if not well specified⁴³. A dimensional approach, in addition to the categorical one, offers some insight in the expression of psychopathology in migrants, which can more hardly fit in usual diagnostic categorizations. Clinicians should take culturally derived differences in expression of psychiatric conditions into account in the process of diagnosing and prescribing therapy to migrant patients.

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Conflict of interest

The Authors declare no conflict of interest.

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Authors' contributions

CP was the main investigator and was involved in every aspect of the research; VR collaborated in the data gathering, clinical management of patients and conceptualization of the research; RS contributed in the conceptualization of the research and the writing of the manuscript; RG collaborated in the data collection and the clinical management of patients; VM collaborated in the data collection and management of the dataset; LT collaborated as a consultant in every phase of the research; AM supervised the final version of the manuscript; MP helped in the conceptualization of the research and supervision of the final version of the manuscript; LT collaborated in the conceptualization, clinical management of patients and writing of the manuscript; MB supervised in each phase of the research and contributed to the final version of the manuscript.

Ethical consideration

This study was approved by the Institutional Ethics Committee (Sapienza University of Rome) (being a retrospective chart review not including instruments outside our standard clinical assessment, we received approval by the Institutional Review Board of the Department of Neurology and Psychiatry, Sapienza University of Rome).

The research was conducted ethically, with all study procedures being performed in accordance with the requirements of the World Medical Association's Declaration of Helsinki.

Written informed consent was obtained from each participant/patient for study participation and data publication.

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