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# **Treating Immigrant Patients in Psychiatric Emergency Rooms**

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#### **Abstract**

We examine whether patient variables (geographic origin, gender, Spanish language proficiency) and subjective clinician aspects in emergency department psychiatric encounters (i.e. diagnostic certainty, clinician's comfort level with patient) are associated with diagnosis and the use of coercive measures. Using a descriptive cross-sectional design, we recorded 467 visits (400 foreign-born and 67 native-born patients) in hospital psychiatry emergency rooms (ERs) in Barcelona between 2007 and 2015. We first assessed the association of patient variables and subjective clinician aspects of psychiatric encounters with service use outcomes and with mental illness diagnosis. Fitted logistic models predicted the likelihood of service use outcomes and estimated the propensity of receiving each diagnosis. The null model evaluated the role of patient's geographical origin, while the full model evaluated the additional roles of patient's gender and language, the clinician's assessment of the influence of culture in diagnosis, and clinician comfort with two outcomes: patient's diagnosis and use of coercive measures in the ER. Women were less likely to receive coercive measures or intramuscular medications compared to men. Significant ethnic/racial and gender differences were found in receiving certain diagnoses. Additionally, a patient's lower Spanish proficiency was correlated with a higher probability of receiving a psychosis diagnosis. The clinician's level of diagnostic certainty was also positively

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correlated with increasing clinician-reported comfort with patient. Overall, ethnic factors and the subjective aspects of psychiatric encounters influence diagnosis and the use of coercive measures. Cultural competency programs and interpreter services within psychiatric ER settings should thus be required.

#### Keywords

immigrant; emergency department; culture; ethnicity; diagnosis; coercive measures

### Introduction

In recent years, immigration to Spain has dramatically increased, changing the sociodemographic composition of the country. The foreign-born population registered in the city of Barcelona constituted 3.9% of the whole population in 2000, and by 2006, it constituted 15.9% (Department d'Estadística Ajuntament de Barcelona, 2015). The proportion of foreign-born people in Barcelona has leveled off after rising as high as 18.1% in 2009 to 16.3% in 2015. These figures are higher than the rest of Spain, where in 2016, 9.15% of the population was foreign-born (Instituto Nacional de Estadística, 2016). Currently, large populations of immigrants come to Barcelona from North Africa (specifically from the Maghreb region; n=15,012), Latin America (n=79,189), Asia (n=61,001), Eastern Europe (n=28,168), and the rest of Europe (n=54,280). Spain is a preferred destination for immigrants from Morocco due to its geographical proximity and a preferred destination for immigrants from Latin America for its idiomatic and cultural similarities. But above all, the main motivation for immigration to Spain is economic improvement (Elteto, 2011). Migration movements are significant across Europe, in which 35 million foreign-born individuals reside (Eurostat, 2017). The number of international immigrants—persons living in a country other than where they were born—reached 244 million in 2015 for the world, an increase of 41 percent compared to 2000 (UN, 2016).

Although intricacies of the relationship between immigration and psychopathology remain unclear, the need for psychiatric care is certainly related to unique stressors experienced by immigrant populations. On a global level, immigrants share similar general consequences that may affect their mental health: loss of social ties, lack of financial and social support, as well as high levels of stress and discrimination (Alcántara, Estevez, & Alegría, 2015; Rajmil, Herdman, Ravens-Sieberer, Erhart, & Alonso, 2014).

Given time constraints as well as the acute and often undefined nature of most presenting problems in psychiatric emergency rooms (ERs) (Chaput, et al., 2008), barriers to quality care may be amplified (Lincoln, White, Aldsworth, Johnson, & Strunin, 2010). Psychiatrists are required to perform rapid assessments and make swift treatment decisions, even if they do not have linguistic competency in the patient's language and are unfamiliar with the patient's cultural background. Language skills of patients and clinicians are also reduced in times of stress, exacerbating barriers to quality care (Carrasquillo, Orav, Brennan, & Burstin, 1999; McDonald, 2006). Additionally, there is some indication that race, ethnicity, and immigrant status of the patient influence disposition and diagnosis (Unick et al., 2011).

Furthermore, immigrant patients often express distress in accordance with their cultural background, in a way that may not conform to standard Western psychiatric nosology (Bhui & Bhugra, 2002; Kirmayer, 2001). Thus, improperly trained clinicians may resort to stereotyping and even biased or discriminatory treatment of culturally diverse patients. The degree to which clinicians are unaware of how their own biases impact the diagnostic process is particularly striking (Tervalon and Murray-Garcia,1998). For instance, irritability can be easily misinterpreted by clinicians as hostility and potential aggressiveness (Kauff, Ashbrock, Issmer, Thörner, Wagner, 2015; Enosh & Ben-Ari, 2013).

It is well documented that immigrant and ethnic minority patients receive a lower quality of care (Smedley, Stith, & Nelson, 2003). Various countries, including Norway (Knutzen, Sandvik, Hauff, Opjordsmoen, & Friis, 2007), Holland (Mulder, Koopmans, & Selten, 2006; van der Post et al., 2012), Denmark (Norredam, Garcia-Lopez, Keiding, & Krasnik, 2010), Spain (Pascual et al., 2008; Perez-Rodriguez et al., 2006), and Italy (Tarsitani et al., 2013) have begun examining the care of immigrants and ethnic minorities in psychiatric emergency rooms. Studies have found clinicians utilize coercive measures (i.e. depriving a patient of personal freedom by involuntary commitment or direct physical pressure (Pawlowski & Baranowski, 2017)), including involuntary hospitalization, restraints, or the forced administration of depot intramuscular medication in the psychiatric ER (Buja et al., 2014; Norredam et al., 2010; Tarsitani et al., 2013). Most of these studies conclude that immigrants and refugees are more likely to be subjected to coercive procedures, but whether these findings are specific to certain immigrant groups remains unclear.

According to international and national guidelines, coercive measures should only be used in very specific cases such as when the patient is a danger to themselves or to others and will benefit from the measures (Treatment Advocacy Center, 2018; Zhang, Mellsop, Brink, & Wang, 2015). Yet, the question remains whether the reason for elevated levels of coercive measures with immigrants derives from patient behavior and genuine need, or from other clinician factors that influence the outcome (Luciano et al., 2014). Although Norredam, Garcia-Lopez, Keiding, and Krasnik (2010) recognized that misdiagnosis may be a factor, research on this topic focuses on patient characteristics and behavior with little examination of clinician characteristics (Iversen & Morken, 2003). In a review examining predictors of coercive measures, Luciano et al. (2014) found only one study that considered "staff characteristics" (De Benedictis et al., 2011). The study noted that it was the staff's perception of anger and aggression among other team members as well as the perception of insufficient safety measures that accounted for coercive measures. Clinician perception of patient "aggressiveness" has also been identified as a factor that positively influenced the use of coercive measures (Abderhalden, 2007). Simpson, Joesch, West, and Pasic (2014) found that clinician rating of patient disruptiveness was instrumental in deciding whether or not to use coercive measures. Patient situations such as these are more likely in complex, high stress environments like psychiatric ERs (Poulisse, 1999).

#### Aims of the study

The aim of this study is to explore the relationship between immigrant patients' characteristics (i.e. geographic origin and gender) and clinician evaluation of aspects of the

clinical encounter (i.e. perceived language proficiency in Spanish of the patient and level of comfort with the patient) as well as the likelihood of specific diagnoses, clinical certainty of the diagnosis, and the use of coercive measures in the psychiatric ER setting. Both diagnostic outcomes (type of diagnosis and level of clinical certainty) and outcomes of service use are analyzed as dependent variables, as well as the use of coercive measures including use of physical restraints, the intervention of security personnel, the involuntary administration of any intramuscular medication, and involuntary admission. These patient characteristics and clinician aspects are potentially key elements in emergency room treatment and may have an impact on the patient-clinician relationship. Research indicates that psychiatric diagnoses, particularly in the face of cultural and racial/ethnic diversity, are influenced not only by clinical information but also by clinician characteristics (Balsa & McGuire, 2003). Therefore, we explore three aspects related to the clinician: the perceived level of diagnostic certainty, the perceived importance of culture in the diagnostic process, and the reported level of comfort with the patient in the clinical interview. We hypothesize that an amalgam of clinician and patient characteristics combine to impact diagnosis, involuntary hospitalization, and the use of coercive measures.

#### **Methods**

This is a descriptive cross-sectional exploratory study conducted at the Emergency Department of Psychiatry in Hospital Vall d'Hebron and Hospital del Mar in Barcelona, both of which are general university hospitals that receive a representative sample of the general population in Barcelona. The hospitals are geographically located in the northern and southern areas of the city of Barcelona and cover a catchment area of 400,000 and 280,000 patients, respectively. To retain subjectivity, we purposefully did not explicitly define culture as part of this study. The study was approved by the ethics committee of the Vall d'Hebron University Hospital for both locations.

#### **Research Procedures**

Patients were identified in the ER by psychiatric residents and staff psychiatrists. Any patient from a foreign country (Spain was considered the host country) was included in the study during the recruitment periods. Inclusion criteria for this study were that patients must have been admitted to the psychiatric emergency room and they must have been at least 18 years old. There were no exclusion criteria, as all patients admitted to the emergency room had been previously screened by trained physicians as needing psychiatric attention.

Since the information regarding clinicians' perceptions was recorded retrospectively after they evaluated the patient, patients were not asked for written informed consent. Clinicians did not modify their usual activity while evaluating their patients; however, after they finished the evaluations, they were asked to fill out a questionnaire that included the study measures.

Patients were divided into 6 groups according to their area of origin: Latin America, North Africa, Sub-Saharan Africa, Asia, Eastern Europe, and Western Europe. These regions represented the principal regions of immigration in Spain. Current immigration status was not registered. Although these categories are imperfect in terms of the heterogeneity of

individuals included in each group, we felt a balance was needed between specificity and breadth in order to capture the diversity of the immigrant population in Spain. Due to the small sample of patients from Sub-Saharan African (n=14), this subgroup was not included in the statistical analysis. Finally, a group of Spanish-born participants was included as a comparison group.

Two ad-hoc questionnaires for clinicians were designed by the researchers before conducting the study: one for evaluations with foreign-born patients and another for evaluations with Spanish-born patients. Once the documents were agreed upon by the research teams from the two centers, copies of the questionnaires were distributed in the psychiatric emergency rooms of both hospitals. At Vall d'Hebron University Hospital, 12 staff psychiatrists (7 females and 5 males, all Spanish-born except one clinician from Guatemala) and 10 psychiatry residents (8 females, all Spanish-born except one clinician from Venezuela; and 2 males, one Spanish-born and the other from Eastern Europe) completed the surveys. At Hospital del Mar, 10 staff psychiatrists (6 males, 4 females, all Spanish-born) and 8 residents (7 females and one male, all Spanish-born) were involved in the study. The research team held two open informative sessions about the study in both sites. Psychiatrists' participation was voluntary, and as such, reasons for not participating were not recorded.

#### **Research Procedures**

Once the patient entered the ER, they were interviewed by a staff or resident psychiatrist as part of the ER's usual procedures. Participating clinicians completed the clinician survey immediately after the psychiatric interview with the patient. Clinician surveys were collected from 467 visits (400 foreign-born and 67 native-born patients) in the emergency room during two-time periods, from January to December 2007 and October to December 2015, to collect data of a sufficient sample size and based on availability of the primary investigator. This study was carried out without any financial support and, thus, some difficulties in recruiting a large enough sample were encountered. The period of recruitment was extended once analysis of the first sample was begun and it was realized that more patients were needed to reach a statistically sufficient sample. Having an additional data collection period also allowed us to achieve a more diverse sample of clinicians and patients, enhancing the external validity of the study.

### Measures

The PI and the research team developed two ad-hoc questionnaires that were filled out by the clinicians: one for foreign-born patients and another for native-born controls. The questionnaires gathered information about patient's sociodemographic data (according to the clinician's perceptions) and clinicians' evaluation of the clinical encounter with the patient. The independent variables included in the clinician assessment for foreign-born participants were: geographic origin of the patient (Latin American, North African (specifically, from the Maghreb region), Asian, Eastern European, and Western European), gender and a subjective evaluation of the patient's level of Spanish comprehension and expression. A 4-point Likert-like scale ranging from "not at all" to "completely" was used for the clinician evaluation of the patient's fluency in Spanish. Psychiatrists subjectively assessed the extent to which

cultural differences, in one way or another, could have influenced the development of the interview. In culturally discordant clinical encounters, how clinicians understand culture and its influence on symptom presentation as well as the formation of cultural prototypes from previous experiences with patients of the same ethnic background may further influence the downplay of culture in diagnostic decision making (Adeponle, Groleau, & Kirmayer, 2015; Sandhu et al., 2013). Being aware of the influence of the understanding of culture, we purposely did not explicitly define culture in this study as we wanted to gather the subjectivity linked to clinicians' own personal interpretations of patients' culture, given that each clinician has their own schema of evaluating culture. The questionnaire also assessed clinician's level of comfort, referring to whether the clinician felt comfortable in establishing proper contact with the patient. Comfort level was, again, a subjective opinion measured by a question with response categories of "completely," "mostly," "somewhat," and "not at all."

Clinicians recorded a primary diagnosis for each patient, choosing from the categories of depression, anxiety, psychosis (including mania symptoms), substance use disorder, and personality disorder. The dependent variables of our study were type of diagnosis, certainty in diagnosis and coercive measures applied as an aggregate measure, and the use of intramuscular medication and involuntary commitment to the service as specific measures. Certainty in diagnosis reflected to what extent clinicians were confident with the diagnosis assigned to the patient. This subjective opinion of the psychiatrist was measured by asking "How certain are you in your diagnosis?" with response categories of "completely," "mostly," "somewhat," and "not at all". The coercive measures were identified in the questionnaire as mechanical restraints, the need for an intervention by the security staff of the hospital, the use of intramuscular psychoactive medication, and/or involuntary hospitalization (Spanish Law, under the 763 Art. of Civil Code, allows for involuntary hospitalization for those individuals deemed to be a danger to self or others). A translated copy of the questionnaires can be found in the online supplement.

#### **Statistical Analysis**

We first compared patient's descriptive information (gender, language proficiency, level of culture influence and level of clinician comfort) across multiple geographical origin groups (Table 1). Chi-square test was used to detect group differences for each of these variables and the p-value was reported for significance. Next, we assessed the cultural and ethnic factors in their relation to certain characteristics of service use (Table 2) and to the diagnosis of mental illness/substance use (Table 3). Table 2 includes two regression models to predict the likelihood of each of the following outcomes of service use: certainty in the diagnosis, use of coercive measures, use of intramuscular medication, and involuntary commitment to the service. The first model served as a null model that only evaluated the role of patient's geographical origin. The second model (full model) further evaluated the role of gender, language proficiency, level of the clinician's perceptions of culture influence, and clinician's comfort during the interview on certainty of diagnosis and use of coercive measures Similarly, Table 3 adopted the same model specifications to estimate the propensity to receive each of the following diagnosis: depression, anxiety, psychosis, alcohol disorder, and personality disorder. Two regressions were estimated for each diagnostic outcome. The first

model only adjusted patient's geographical origin and the second model further controlled for the same list of additional variables as in the full model in Table 2. Ordered logistic regressions were used for a 4-category ordinal response outcome of certainty in diagnosis and standard logistic regressions were fitted for the remaining binary outcomes. In these regression analyses, odds ratios and their 95% confidence intervals were reported. All statistical analyses were conducted in Stata 14 (StataCorp, 2015).

#### Results

Table 1 shows clinicians' reports of patient characteristics and clinicians' subjective aspects of clinical encounters in the ER, tested by patient's geographical origin. The majority of Latin Americans were female (66%) whereas majority of North Africans were male (66%). Non-Latino immigrants, in particular Asians (48%) and Europeans (Eastern (59%) and Western (56%)), had a lower level of language proficiency in Spanish as compared to Latinos. Clinicians reported a higher influence of culture when assessing patients from North African and Asian countries compared to those from Spain and South America. In addition, clinicians generally reported a high level of comfort in their encounters with patients, except for Asians (52%).

Table 2 shows the results from multivariate regression analysis predicting outcomes of service use, clinician's certainty of diagnoses, and the use of coercive measures. After adjusting for social and demographic characteristics, there was no significant difference between native Spaniards and immigrants in terms of certainty of diagnosis, use of coercive measures, and IM medication; although, Latino immigrants had lower odds of involuntary commitment relative to native Spaniards. Females were less likely to be subjected to mechanical coercion or to intramuscular medications. Finally, clinician report of a high level of comfort with culturally diverse patients was associated with a lower likelihood of using coercive measures and a greater likelihood of reporting diagnostic certainty.

Table 3 shows multivariate regression models assessing the effect of patient's geographical origin on specific diagnosis. Significant differences between immigrants and native-born Spanish participants were found in terms of the likelihood of receiving certain psychiatric diagnoses, after adjusting for patient's characteristics. Asians and Western Europeans were found to have higher odds of being diagnosed with anxiety disorder, whereas Latin American immigrants were less likely to be diagnosed with psychosis compared to native Spaniards. Women were more likely to be diagnosed with depression but were less likely to be diagnosed with psychosis or substance use disorder (SUD). Both greater clinician perception of cultural influence and higher levels of patient fluency in Spanish were associated with lower odds of assigning a psychosis diagnosis.

#### **Discussion**

Being aware of the drawbacks of some components of the study methodology, the results from our analysis bring forth interesting findings that are worthy of discussion.

#### Predicting Use of Coercion in the Psychiatry ER

When clinicians reported greater level of comfort with culturally diverse patients, it was found that there was a decreased likelihood of using coercive measures, indicating the importance of communication in these clinical encounters. Indeed, Latin American immigrants were significantly less likely to be hospitalized involuntarily, suggesting that sharing a language and a relatively familiar cultural context can ameliorate tension that may otherwise lead to implementation of coercive measures in the psychiatric ER. These findings also support the need to implement and improve cultural competence trainings in psychiatric ER settings to enhance mental health treatment for immigrant populations.

#### **Diagnostic Outcomes**

This study suggests that the clinician's comfort during the clinical encounter is an important factor to consider in regard to the treatment of diverse populations in emergency room settings, as clinician comfort is highly related to the clinician's diagnosis certainty and can help predict whether mechanical restraints will be implemented or not. Our results show that the patient's region of origin is related to the final diagnosis. For instance, being from Asia or Western Europe is associated with a higher probability of being diagnosed with anxiety, whereas being Latino is associated with a lower probability of being diagnosed with psychosis compared to other immigrant groups. Although we lack a gold-standard method to evaluate the accuracy of these diagnoses and there are potential confounders to consider (e.g. clinicians' proficiency in other languages), the results suggest that language plays a central role as the quality of communication between Spanish psychiatrists and Latino patients can be assumed to be superior to the quality of communication between Spanish psychiatrists and patients from other parts of the world. This higher quality of communication could lead to a better understanding of presenting symptoms when treating Latino patients. In fact, lower levels of Spanish proficiency were correlated with a higher probability of a psychosis diagnosis and, surprisingly, correlated with clinicians reporting little influence of culture in their diagnosis. As shown in the literature, improved communication could decrease the risk of erroneous evaluations and, consequently, the over-diagnosis of psychosis (Adeponle, 2012). Also consistent with the literature is the finding that gender is strongly related to diagnosis regardless of geographic origin (Potts, Burnam, & Wells, 1991). Being female is correlated with a higher likelihood of depressive diagnosis and a lower likelihood of a diagnosis of psychosis and SUD. This diagnostic pattern has been found even in cases where both men and women had both disorders (Dargouth, et al., 2012), suggesting the strong impact of statistical discrimination.

A previous review of studies on immigration and schizophrenia risk found that immigrants have a greater risk of being diagnosed with schizophrenia than native-born populations and that the risk is greatest among immigrants to countries with recent histories of immigration as well as among immigrants with darker skin color (Dealberto, 2010). A similar level of increased risk for diagnosis of psychotic disorders persists in second generation immigrants, indicating that post-migration factors such as acculturation, discrimination, and linguistic barriers play a significant role in the onset of psychotic disorders among immigrants (Bourque, van der Ven, & Malla, 2011). Language and culture may not only play a role in the onset of psychiatric illness but also influence the diagnostic process of psychiatric illness

in immigrants. It is well established that sociocultural differences between patient and clinician may result in miscommunication, distrust, poor treatment adherence, and worse outcomes (Alegría et al., 2008; Singh, Croudace, Beck, & Harrison, 1997; Whaley, 2001). The issues associated with patient-clinician language barriers stress the need for more accessible professional interpreters in Emergency Rooms.

#### **Outcomes of Service Use**

Clinician comfort with the patient during the ER encounter also plays an important role. As reported above, low levels of clinician comfort during the clinical interview caused clinicians to be more inclined to resort to coercive measures. Even though confounders such as the correlation of severity of the condition and the use of coercive measures were not explored, this result, combined with our other findings, suggests that clinicians are inclined to act in ways that are inconsistent with good clinical practice in the face of the unknown but simultaneously minimize the relevance of cultural differences. The lower levels of involuntary hospitalization of Latino immigrants compared to the other foreign-born patients underscore the importance of the doctor-patient relationship in the diagnostic process and the notion that language as well as culture influence the development of this relationship. The interpretative process inherent in any psychiatric diagnosis relies on high quality verbal and non-verbal communication, which allow the clinician to disentangle the patient's words, metaphors, and the context in which they are framed. Accordingly, we see a greater tendency to diagnose psychosis when language and cultural differences impede good communication. The elevated levels of psychosis diagnosis in patients deemed to have poor Spanish language proficiency suggests some clinicians are inclined to view behavior as "strange" when they have a poor understanding of patient symptomatology. This may well be related to issues of how "strangeness" is expressed and interpreted across cultures and languages; the greater the difference, the greater the likelihood to perceive unfamiliar behaviors or expressions as "crazy" and the greater probability to make an association with "violent behavior" (Marie & Miles, 2008; Monahan, 1992). However, this tendency conflicts with the ethical principles and codes of conducts of psychologists and physicians that are clear about not engaging in unfair treatment based on individual's characteristics, including ethnicity (American Psychological Association, 2002; Consejo General de Colegios Oficiales de Medicos, 2011). Again, these issues underscore how imperative it is to have rapid access to interpreters in the Emergency Room given the grave implications of language barriers. Moreover, mental health professionals are seen as "protectors of client welfare," as their acts and opinions can lead to policy changes in the law and society's perceptions about the mentally ill (Goins, Good & Harley, 2010). Simultaneously, it is striking that there was a strong tendency for the diagnosis of psychosis to be associated with clinician assessment of low levels of cultural influence in the interaction. Clinicians acknowledged that the patient's language proficiency was low yet considered culture as an unimportant aspect of the interaction when diagnosing patients as psychotic. This finding suggests a concerning lack of cultural sensitivity among clinicians in the ER and highlights the importance of promoting cultural competence training that is currently absent in the Spanish psychiatry residency curriculum (BOE, 2008).

Overall, the data suggests that clinician's comfort during the clinical interview in ER settings is influenced by patient race, ethnicity, and culture which, in turn, has consequences

for patient diagnosis and course of treatment. These results support the need for cultural competency training for clinicians, especially for psychiatrists in the emergency room who are often under severe time constraints when diagnosing patients. There have been some initiatives that have attempted to improve the cultural sensitivity of psychiatric diagnosis procedures; however, in cases with diagnostic ambiguity or uncertainty, clinicians tend to rely on conditioned stereotypes (Adeponle et al., 2015). Cultural competency for mental health care clinicians should be designed to emphasize diagnostic procedures that address implicit bias. This should include finding common identities with patients as well as actively engaging in counter-stereotyping and taking the perspective of the patient (Stone and Moskovitz, 2011) in a challenging setting like the ER where time and resources are usually limited and there can be a lack of cultural brokers or interpreters available on site. The American College of Emergency Physicians has issued a policy statement asserting that cultural awareness should be an essential element in training physicians and is necessary to assure the provision of safe, quality care in the emergency room (American College of Emergency Physicians, 2008). These cultural competency trainings could serve to improve the accuracy of clinician diagnoses and treatment through a curriculum focused on the influence of cultural factors and subjective aspects of psychiatric encounters with patients of non-Spanish backgrounds (Giacco et al, 2014). Additionally, this study found that lower Spanish proficiency was correlated with a higher probability of receiving a diagnosis of psychosis, demonstrating the need for language interpreters either in-person or by telephone in the emergency room. Communicating in a language understood by the clinician allows clinicians to better understand patients' symptoms and to feel more comfortable with their patients and their diagnostic certainty. ERs need to facilitate access to qualified medical interpreters, and given the fast-paced nature of communication in the ER, telephone interpreting services may be more feasible than direct interpreting services (Kluge et al., 2012).

#### **Strengths and Weaknesses**

Despite the clear evidence that immigrants and ethnic minorities are subjected to inadequate care in the ER, very few studies examine the clinician or their decision-making characteristics. Most studies show a tendency to interpret these findings based on patient behavior (Snowden, 2003). This study is the first, to our knowledge, to include the clinician's perception of the patient's level of language proficiency in Spanish in relation to the type of diagnosis they gave in the psychiatric emergency room. The study also assessed some subjective characteristics strongly related to the diagnostic process, including clinical diagnostic certainty, level of comfort during the interview, and clinician perception of the importance of culture in the diagnostic process. The unique ER setting allowed for a close analysis of the encounter between clinicians and culturally diverse patients, providing the opportunity for a novel assessment of the relationship between characteristics of service use (involuntary commitments, use of coercive measures, intramuscular medication) and diagnosis (type of diagnosis and level of clinical certainty) in light of patient's descriptive information and the subjective variables describing the relationship of clinicians with diverse patients.

Limitations are inherent in a study of this type, which was based in a real ER setting with various clinicians and subjective considerations involved. Regarding Spanish language abilities of patients, our goal was not to collect "objective" scores, but rather to understand the clinician's subjective impression, given the importance of perceived communication in the diagnostic process. In addition, diagnoses relied on a subjective judgment instead of on a structured instrument (e.g. MINI, CIDI, SCID) (Lecrubier et al., 1997; Sheehan et al., 1997), as we wanted to reproduce the normal process used in the ER rather than have clinicians feel evaluated on their diagnostic competencies. Without an objective re-assessment, we cannot ensure that we are seeing real diagnostic differences rather than biases of the clinician. However, our results are very much in line with results obtained by Minsky et al., Eack et al., and Neighbors et al., showing divergent patterns of diagnoses associated with ethnicity and race that were inconsistent with structured diagnoses (Minsky et al., 2003; Eack, Bahorik, Newhill, Neighbors & Davis, 2012; Neighbors, Trierweiler, Ford & Muroff, 2003).

The data collection period was interrupted and then resumed years later to increase the sample size. This may have lead to potential bias in the results due to the effect of the economic crisis that started in 2008 and had an impact on immigrants' employment and social services (López-Sala, 2017) as well as any other unexplored change of the clinicians' perceptions. However, this may also bring more reliability to our data as it encompasses the two different periods of time with the same results. Another limitation was that the ad-hoc questionnaires were not validated, which could reduce the reliability of the assessments. Nevertheless, we did not find measures that addressed the study goals, and therefore, created specific ones. It is also important to recognize the subjectivity of some of the variables, such as the "influence of culture" or the psychiatrist's "degree of comfort during the clinical interview", that may be affected by a wide range of confounders such as the influence of the psychiatrist's personality, the clinician's previous experiences, and the number of hours that the clinician has been working when the encounter occurs. Our future work will explore, in qualitative methods, how to complement the subjective measures used here with objective measures.

Furthermore, information about "severity" of the episode or whether the interview took place at night or during the day was not collected, both of which could influence the psychiatrist's "degree of comfort." Whether a patient had previously used hospital services was not recorded, which could lead to bias in the measure of diagnostic certainty. Patient age was not included in our results but could influence any of our outcomes. As such, our work serves as an exploratory study to reduce the knowledge gap of how patient characteristics (geographical origin, gender, Spanish proficiency) and subjective clinician aspects in emergency department psychiatric encounters (diagnostic certainty, clinician's comfort level) are associated with the diagnostic and treatment process. Additionally, we acknowledge that the use of coercive measures might be related to the severity of the condition which was not evaluated, rather than being related to a specific racial or ethnic group. The use of oral medication "under pressure" is not specified, but often, in the emergency room, clinicians must "coerce" the patient into taking medication (in the case of mechanical restraints or within the presence of security personnel). Finally, our data does not distinguish between the use of depot medication and the timely administration of other drugs for physical agitation.

# Conclusions/implications

It is crucial that psychiatric resources and practices adapt to demographic population shifts to ensure that all patients receive quality care regardless of their ethnic, racial, cultural, or linguistic background. This study shows that it is not only patient's characteristics but also clinician's factors that influence the diagnoses and treatment delivered in ER settings. Because of the unique nature of the emergency room setting, the clinician must establish rapport and reliable communication, often during brief contact with patients that may occur under considerable time pressure, and thus makes diagnostic and treatment decisions challenging (Pasic, Poeschla, Boynton, & Nejad, 2010). Adapted cultural competence training for clinicians and future research involving patient's perspective analysis are sorely needed.

# **Supplementary Material**

Refer to Web version on PubMed Central for supplementary material.

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# **Biography**

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Table 1

Clinician Perceived Patient Characteristics and Clinicians' Subjective Aspects of Psychiatric Encounters in ED by Patient's Geographic Origin (N=397)

Clinician Perceived Patient Characteristics       Patient's Gender     n     %		Spa (n	paniards (n=67)	Latin Aı (n=	n Americans (n=180)	North (n	Spaniards Latin Americans North Africans Asians (n=23) $\begin{array}{cc} \text{Spaniards} & \text{Latin Americans} & \text{North Africans} & \text{Asians (n=23)} \\ \text{(n=67)} & \text{(n=180)} & \text{(n=52)} \end{array}$	Asians	s (n=23)	Eas Euro (n=	Eastern Europeans (n=34)	Wes Euro (n=	Western Europeans (n=41)	
1     %     n     n     n	Clinician Perceived	Patie	ıt Chara	cteristics										
1.2   32   65.3   11   50   18   56.3     5.8   17   34.7   11   50   14   43.8     .7   9   18   12   52.2   14   41.2     counters     3.2   28   11   47.8   20   58.8     3.2   28   53.8   11   47.8   22   64.7     5.8   24   46.2   12   52.2   12   35.3     5.1   11   21.2   11   47.8   14   41.2     5.9   41   78.8   12   52.2   20   58.8	Patient's Gender	п	%	u	%	п	%	п	%	u	%	п	%	p-value
5.8     17     34.7     11     50     14     43.8       .7     9     18     12     52.2     14     41.2       8.3     41     82     11     47.8     20     58.8       counters     7     7     7     7     7     7       5.2     28     53.8     11     47.8     22     64.7       5.8     24     46.2     12     52.2     12     35.3       5.1     11     21.2     11     47.8     14     41.2       5.9     41     78.8     12     52.2     20     58.8	Male	33	50.8	55	34.2	32	65.3	=======================================	50	18	56.3	21	52.5	0.004
.7 9 18 12 52.2 14 41.2   s.3 41 82 11 47.8 20 58.8   counters 82 11 47.8 22 64.7   s.2 28 53.8 11 47.8 22 64.7   5.8 24 46.2 12 52.2 12 35.3   9.1 11 21.2 11 47.8 14 41.2   9.9 41 78.8 12 52.2 20 58.8	Female	32	49.2	106	65.8	17	34.7	11	50	41	43.8	19	47.5	
3.3     41     82     12     52.2     14     41.2       counters       3.2     28     53.8     11     47.8     22     64.7       5.8     24     46.2     12     52.2     12     35.3       5.1     11     21.2     11     47.8     14     41.2       5.9     41     78.8     12     52.2     20     58.8	Jnderstand Spanish													
3.3     41     82     11     47.8     20     58.8       counters     3.2     28     53.8     11     47.8     22     64.7       5.8     24     46.2     12     52.2     12     35.3       5.1     11     21.2     11     47.8     14     41.2       5.9     41     78.8     12     52.2     20     58.8	None/little	0	0	3	1.7	6	18	12	52.2	14	41.2	18	43.9	0.000
counters 11 47.8 22 64.7   5.8 24 46.2 12 52.2 12 35.3   5.1 11 21.2 11 47.8 14 41.2   5.9 41 78.8 12 52.2 20 58.8	Quite/a lot	29	100	177	98.3	41	82	=======================================	47.8	20	58.8	23	56.1	
3.2 28 53.8 11 47.8 22 64.7   5.8 24 46.2 12 52.2 12 35.3   5.1 11 21.2 11 47.8 14 41.2   5.9 41 78.8 12 52.2 20 58.8	Clinicians' Subject	ive Asp	ects of 1	Psychiatri	c Encount	ers								
3.2 28 53.8 11 47.8 22 64.7   5.8 24 46.2 12 52.2 12 35.3   9.1 11 21.2 11 47.8 14 41.2   9.9 41 78.8 12 52.2 20 58.8	Clinician Perceived	Culture	Influenc	e Se										
5.8 24 46.2 12 52.2 12 35.3   5.1 11 21.2 11 47.8 14 41.2   9.9 41 78.8 12 52.2 20 58.8	None/little	99	98.5	131	73.2	28	53.8	11	47.8	22	64.7	36	87.8	0.000
0.1 11 21.2 11 47.8 14 41.2   9.9 41 78.8 12 52.2 20 58.8	Quite/a lot	1	1.5	48	26.8	24	46.2	12	52.2	12	35.3	S	12.2	
2     3     18     10.1     11     21.2     11     47.8     14     41.2       65     97     161     89.9     41     78.8     12     52.2     20     58.8	Clinician Comfort w	ith Cul	turally L	oiverse Pat	ients									
65 97 161 89.9 41 78.8 12 52.2 20 58.8	None/little	2	33	18	10.1	11	21.2	=======================================	47.8	41	41.2	11	26.8	0.000
	Quite/a lot	92	26	161	6.68	41	78.8	12	52.2	20	58.8	30	73.2	

Note. p-value for the difference between patient's geographic origin for each clinician perceived patient characteristic and clinicians' subjective aspects of psychiatric encounters in ED is reported.

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Table 2

Multivariate Regression Models predicting Certainty of Diagnosis, Use of Coercive measures, and Service Use

Outcome:	Certainty of Diagnosis <sup>a</sup>	Certainty of Diagnosis	Use of Coercive Measures	Use of Coercive Measures	IM medication	IM medication	Involuntary	Involuntary
Geographical Origin (ref=Spaniards)								
Latinos	0.78	1.06	1.43	1.42	1.39	2.04	0.24*	$0.26^*$
	[0.45,1.36]	[0.59,1.92]	[0.46,4.48]	[0.43,4.70]	[0.38,5.14]	[0.53,7.91]	[0.07,0.80]	[0.08,0.89]
North Africans	0.58	1.14	4.23*	2.12	3.88	3.49	1.33	1.34
	[0.29,1.16]	[0.53,2.44]	[1.26,14.17]	[0.54,8.32]	[0.97,15.44]	[0.77,15.78]	[0.44,4.07]	[0.39,4.53]
Asians	0.32*	0.92	1.5	0.31	2.03	1.20	0.39	Omitted
	[0.13,0.79]	[0.35,2.43]	[0.26,8.79]	[0.03, 3.56]	[0.32,13.00]	[0.10,13.73]	[0.05, 3.35]	
Eastern Europeans	0.30 **	0.71	2.10	1.06	2.84	3.14	1.14	0.77
	[0.14,0.64]	[0.31, 1.64]	[0.49,8.97]	[0.21,5.35]	[0.60, 13.52]	[0.59, 16.63]	[0.31,4.21]	[0.18, 3.36]
Western Europeans	0.51	0.85	2.70	1.68	1.68	1.53	2.41	1.54
	[0.24,1.08]	[0.38, 1.89]	[0.71,10.22]	[0.38,7.47]	[0.32,8.77]	[0.26, 8.94]	[0.82,7.08]	[0.45, 5.27]
Patient Gender (ref=Male)								
Female		0.73		0.47*		0.29 **		1.18
		[0.48,1.09]		[0.22,0.99]		[0.12,0.72]		[0.54,2.55]
Understand Spanish (ref=None/Little)								
Quite/A lot		1.22		1.08		0.76		0.53
		[0.62, 2.40]		[0.35,3.37]		[0.21,2.78]		[0.18, 1.59]
Culture Influence (ref=None/Little)								
Quite/A lot		0.61		0.98		0.37		69.0
		[0.37,1.01]		[0.41,2.37]		[0.11,1.23]		[0.24,1.99]
Clinician Comfort (ref=None/Little)								
Quite/A lot		5.02 ***		0.21 ***		0.88		0.54
		[2.75,9.17]		[0.09,0.51]		[0.26,2.98]		[0.19, 1.50]
Z	368	365	369	366	369	366	347	344

Note. 95% Confidence Intervals of ORs are reported in brackets.

<sup>\*</sup> p<0.05,

\*\* p<0.01,

 $^{***}$  p<0.001. Two models are fitted for each outcome.

 $^{\it a}$  The first model is the null model that only adjusts for patient's geographical origin.

he second model is the full model, which further adjusts for gender, language proficiency, level of the clinician's perceptions of culture influence, and clinician's comfort during the interview. Asians were omitted in the last regression because being Asians perfectly correlated with the outcome after controlling for the rest factors. An Ordered Logistic Regression model was used to predict "Certainty of Diagnosis" and a Logistic Regression model for the other outcomes. **Author Manuscript** 

Table 3

Multivariate Regression Models predicting the likelihood of specific diagnosis

Outcome:	Depression <sup>a</sup>	${\rm Depression}^b$	Anxiety	Anxiety	Psychosis	Psychosis	Substance Use Disorder	Substance Use Disorder	Personality Disorder	Personality Disorder
Geographical Origin (ref=Spaniards)	ef=Spaniards)									
Latinos	1.54	1.14	2.63	2.13	0.34	0.42	0.67	76.0	1.03	1.24
	[0.79,3.01]	[0.56, 2.35]	[1.06,6.56]	[0.83,5.49]	[0.18,0.65]	[0.21,0.83]	[0.31,1.44]	[0.43,2.19]	[0.50,2.13]	[0.55,2.79]
North Africans	0.79	0.97	3.05	2.87	0.85	0.82	0.83	0.87	0.38	0.33
	[0.31,2.01]	[0.35,2.65]	[1.06,8.79]	[0.92,8.91]	[0.39,1.85]	[0.35,1.96]	[0.31,2.22]	[0.30,2.58]	[0.12,1.26]	[0.08,1.34]
Asians	0.80	0.98	5.42	7.25	99.0	0.37	69:0	1.07	0.21	0.18
	[0.23,2.72]	[0.25, 3.85]	[1.63,18.00]	[1.93,27.26]	[0.23,1.95]	[0.10, 1.32]	[0.18, 2.69]	[0.24,4.76]	[0.03,1.70]	[0.02,1.84]
Eastern Europeans	0.81	1.05	2.18	2.75	0.91	09.0	1.19	1.6	0.44	0.44
	[0.28,2.34]	[0.33, 3.32]	[0.65,7.36]	[0.77,9.89]	[0.38, 2.20]	[0.22, 1.63]	[0.42,3.36]	[0.51, 5.03]	[0.12,1.69]	[0.10,2.01]
Western Europeans	0.65	0.83	3.73	4.64	1.36	0.86	0.50	0.57	0.24	0.22
	[0.23,1.85]	[0.27,2.56]	[1.26,11.05]	[1.45,14.80]	[0.61,3.02]	[0.35,2.12]	[0.15,1.65]	[0.16, 2.06]	[0.05, 1.11]	[0.04,1.26]
Patient Gender (ref=Male)	ale)									
Female		2.61		1.70		0.54		0.31		96.0
		[1.51,4.52]		[0.98,2.95]		[0.33,0.89]		[0.17,0.59]		[0.51, 1.81]
Understand Spanish (ref=None/Little)	ef=None/Little)									
Quite/A lot		2.25		2.37		0.35		1.29		99.0
		[0.77,6.60]		[0.89,6.32]		[0.15,0.80]		[0.41,4.03]		[0.17,2.55]
Culture Influence (ref=None/Little)	=None/Little)									
Quite/A lot		1.21		1.86		0.47		0.59		1.04
		[0.64,2.27]		[1.00,3.48]		[0.23,0.96]		[0.26,1.38]		[0.48,2.29]
Clinician Comfort (ref=None/Little)	=None/Little)									
Quite/A lot		0.79		1.21		0.83		1.27		0.87
		[0.35, 1.78]		[0.52,2.79]		[0.38,1.78]		[0.46, 3.50]		[0.31,2.40]
z	369	366	369	366	369	366	369	366	369	366

Note. 95% Confidence Intervals of ORs are reported in brackets.

\*\*\* p<0.001. Two models are fitted for each outcome.

\*\* p<0.01,  $^{\it q}$  The first model is the null model that only adjusts for patient's geographical origin.

The second model is the full model, which further adjusts for gender, language proficiency, level of the clinician's perceptions of culture influence, and clinician's comfort during the interview. Logistic Regression models were used to predict specific diagnosis.