

Impact of Ethnicity on Psychiatric Disorders: Transcultural Study of Foreign Psychiatric Patients in Saudi Arabia.

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ABSTRACT

Background: Ethnic differences exist in patterns of psychiatric diagnosis and management, increasing the overloads on and demands from psychiatric services. **Objective:** to study the demographic and clinical characteristics of a group of foreigners utilizing psychiatric emergency room service in a large governmental Saudi hospital for mental health and to study the influence of ethnic/cultural background on clinical presentation and variation in psychiatric diagnosis. **Subjects and methods:** Demographic and clinical data were obtained cross-sectionally from foreigners presented to the psychiatric emergency room (ER) over 1 year duration. Patients were assessed twice; in ER and in psychiatric ward after admission or in the outpatient clinic if not admitted. A total of 112 foreign patients were included. Help seeking behavior was significantly different between groups. **Results:** Admission rates and psychotic disorders were high among South East Asians while Mediterranean and African patients were more diagnosed with affective disorders. Although there was significant diagnostic difference between ER and final diagnosis, however, it was more related to the nature of presenting symptoms and symptoms after observation rather than to the effect of ethnicity. **Conclusion:** The ethnic background of foreign population may possibly influence psychiatric diagnosis and disposition from psychiatric emergency room. South East Asians are more likely to be hospitalized and labeled with psychotic and neurotic disorders.

Key words: Ethnicity, Psychiatric disorders, Transcultural Study, Egypt, Saudi Arabia.

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INTRODUCTION

Despite that mental illnesses are found worldwide, their manifestations may vary with age, gender, race, ethnicity and culture¹. Previous research reported that minorities tend to receive less appropriate diagnoses and management than the original population. Many investigators reported that Black and Asian clients have greater proportion of psychotic diagnoses than Whites and Latinos who received lesser psychotic diagnoses than Whites. On the other hand, Whites and Asians received

more effective diagnoses than Blacks or Latinos¹⁻². Although the reasons for the ethnic differences in psychiatric diagnosis are unclear, several hypotheses were proposed including existence of actual ethnic differences in rates of psychiatric disorders, clinical presentation and clinician biases³⁻⁴. Research regarding these issues is scarce in the Arab Gulf region which is recently characterized by presence of multiple racial and ethnic minorities. Saudi Arabia is a unique country with multiple

ethnic minorities who are growing steadily and may constitute a challenge for mental health services in the near future. Thus understanding the nature of ethnic differences in psychiatric presentation and diagnosis is an important step towards improving access to psychiatric treatment and provision of mental health services to that ethnic minorities⁵.

Stimulated by these considerations, the aim of the current work was to study the demographic and clinical characteristics of a group of foreigners utilizing psychiatric emergency room in a large governmental Saudi hospital for mental health and to examine the impacts of ethnic/cultural background on clinical presentation and diagnosis.

SUBJECTS AND METHODS

The current study was a cross-sectional study and was done in Al-Amal Complex for mental health, Dammam during 1 year period from October 2006 to September 2007. The study design was approved by the scientific and ethical committee of the complex. All non-Saudi foreigners presented to the psychiatric emergency room (ER) were recruited. Patients are evaluated first time in the ER by clinicians and given provisional (ER) diagnosis. Then after taking an oral informed consent, the second evaluation was done either in the psychiatric ward after admission or in the outpatient clinic if not admitted by 3 psychiatric consultants, each independently revising the data from history taking, ER notes, the ward observation and examining the patients then giving final diagnosis based on ICD-10 research diagnostic criteria⁶. Then the 3 consultants gave consensus for diagnosis of each patient with

good inter-rater diagnostic reliability (101/112). In some cases, because of language barrier, translators were asked for translation. Data collection included the following: 1) Sociodemographic data; age, sex, race/ethnicity, nationality, language, religion, marital status, education, current work in Saudi Arabia, history of previous work abroad, duration of current inhabitation in Saudi Arabia. 2) Data about current illness; onset and duration of disturbance, nature of symptoms and admission rates. Symptoms were grouped as: psychotic, affective, dissociation, anxiety, catatonia, organic (e.g. disturbed consciousness), and no psychiatric symptoms. 3) Provisional (ER) and final diagnoses according to ICD-10 diagnostic criteria. For statistical purposes, diagnoses were grouped into: psychotic disorders (including schizophrenia, schizoaffective, acute psychotic and other psychotic disorders), affective disorders (including major depression and bipolar disorders), neurotic and stress related disorders (including acute stress reaction, adjustment, anxiety and dissociative disorders), cultural bound syndromes, other psychiatric disorders for investigation (as organic and substance related disorders) and no mental illness. 4) Pathway to care which includes first aid route (or initial help-seeking) and the source of information to the psychiatric ER.

Due to little number of each nationality, it was preferred to divide patients on basis of geographical areas as follows: a) South east Asian: Indonesian, Philipino, Indian, Sri-Lankan, Bangladeshi patients; b) Asian: Yemeni patients; c) Mediterranean: Egyptian, Lebanese, Syrian, Jordanian patients; d) African: Sudanese, Eritrean patients; and e) Others: including 2 white American patients.

Statistical analysis

Statistical analysis was done using SPSS version 10.0. Tests for comparisons used included means and standard deviations, frequencies, cross-tabulations, Kruskal-Wallis and Mann-Whitney tests. Regression analysis was finally done using enter method to detect factors affecting diagnostic difference. Level of significance was detected at p value 0.05.

RESULTS

Sociodemographic characteristics of the sample

A total of 112 foreign inhabitants presented to the Saudi psychiatric emergency room (ER) were included in the study. They included 40 male and 72 female with age-range 16-55 years (table 1). Mean age was 32.7 with SD 8.8. 94 (84%) were the first time to work abroad. 18 (16%) had history of previous work abroad (9 in Saudi Arabia and 9 in other countries). Regarding duration of inhabitation in Saudi Arabia: mean duration was 41 months with SD 65.

Pathway to care and help

Regarding first-aid route, 61 (54.5%) had first contact with psychiatric ER, 11 (9.8%) had first contact with medical ER and 40 (35.7%) with legal agencies. Almost all Mediterranean and large percent of African and Asian patients had the first treatment contact with the psychiatric hospital whereas 43.2% of South East Asians patients had first contact with legal agencies. The informant was the sponsor in 61 (54.5%) cases, a family member in 25 (22.3%) and a personnel from legal agencies in the remaining 26 (23.2%) cases. Total admission rate in the psychiatric ward

was 72.3%. Highest admission rate was for south East Asians (77.8%) (table 1 and 2).

Table (1): Sociodemographic and clinical data of the whole sample

Socio-Demographic data		N	%
Sex	Male	40	35.7%
	Female	72	64.3%
Marital status	Married	65	58%
	Single	42	37.5%
	Widowed or divorced	5	4.5%
Nationality	East Asian	88	78.6%
	Asian	6	5.4%
	Mediterranean	12	10.7%
	African	4	3.6%
	Other nationality	2	1.8%
Religion	Moslems	75	67%
	Christians	16	14.3%
	Others	21	18.8%
Language	Arabic	41	36.7%
	English	6	5.4%
	No or little	65	58.1%
Education	Non-educated	49	43.7%
	School education	50	44.6%
	High education	13	11.6%
Type of work	Servant	60	53.6%
	Manual Worker	29	25.9%
	Professional	7	6.3%
	Unemployed	16	14.3%

Clinical characteristics

Eighty three patients (74.1%) of the whole sample presented with acute onset of behavioral disturbance. Eleven (9.8%) had gradual onset whereas 18 (16.1%) had episodic onset and course. Acute onset was significantly most common among South East Asians while Mediterranean and African patients showed more episodic onset and course (table 3). Moreover, there was an association between duration of inhabitation in Saudi Arabia and psychiatric

diagnosis As the duration with psychotic disorders was 41.5 months + SD 73.2, of affective disorders 76.1 months + SD 79, neurotic and stress related disorders 23.8 months +SD 36.9, culture bound syndromes 1.5 months +SD 0.7 and other psychiatric disorders 48.3+SD 75.8 .

As can be observed from table (4), the highest prevalent disorders among the whole sample in both ER and final diagnoses were psychotic disorders followed by neurotic and stress-related disorders then affective disorders. While table (5) shows that diagnostic difference (i.e. variance rate between provisional (ER) and final diagnoses) was significantly higher for neurotic and stress-related disorders more than other disorders.

Relation between ethnicity and diagnosis

Table (6) shows generally more or less stability in diagnosing psychotic disorders and marked variability in diagnosing affective and neurotic disorders among each ethnic group. Overall, it is apparent from table (6) that South East Asians are commonly diagnosed with psychotic and

neurotic/stress related disorders. Culture bound syndromes are exclusively diagnosed in South East Asians. Mediterranean and African patients are more likely to have affective disorders while Asians are commonly diagnosed with psychotic disorders. Table (7) shows higher diagnostic difference among south East Asians more than in other groups; yet, this observation was not significant statistically.

Regression analysis was done to see the factors influencing diagnostic difference. Factors included were age, sex, ethnicity, language, religion, marital state, education, work and duration of inhabitation in Saudi Arabia, presenting symptoms and symptoms after observation in ward. Results of regression analysis was significant $F=1.9$, $df=12$, $p\text{-value}=0.04$. From all above included factors, the only factors that significantly influenced diagnostic difference were presenting symptoms and symptoms after observation ($p\text{-value}$ were 0.02 and 0.001, $CI=-1.8$ to -0.01 and 0.04 to 0.1 , respectively). Ethnicity and language were not related to diagnostic difference ($p\text{-values}$ were 0.4 and 0.9, respectively).

Table (2): Correlation between ethnicity and first aid seeking behavior

Ethnic group	Psychiatric ER N (%)	Medical ER N (%)	Legal agencies N (%)	X ² 19.8	p-value 0.01
South East Asia	41 (46.6)	9 (10.2)	38 (43.2)		
Mediterranean	12 (100)	00	00		
African	3 (75)	1 (25)			
Asian	4 (66.7)	00	2 (33.3)		
Others	1 (50)	1 (50)	00		

Table (3): Correlations between ethnicity and onset of psychiatric disorders

Ethnic group	Acute onset N (%)	Gradual onset N (%)	Episodic onset N (%)	X ² 52.9	P-value 0.000
South East Asian	77 (87.5)	7 (8)	4 (4.5)		
Mediterranean	3 (25)	1 (8.3)	8 (66.7)		
African	00	1 (25)	3 (75)		
Asian	2 (33.3)	2 (33.3)	2 (33.3)		
Others	1 (50)	00	1 (50)		

Table (4): Provisional (ER) and Final diagnoses

Clinical diagnosis	Provisional (ER) diagnosis N (%)	Final diagnosis N (%)
Psychotic disorders	67(59.8)	42(37.5)
Affective disorders	10(8.9)	20(17.9)
Neurotic & stress related disorders	16(14.3)	31(27.7)
Culture bound syndromes	1(0.9)	2(1.8)
Other psychiatric disorders	4(3.6)	11(9.8)
For Investigation	13(11.6)	00
No Mental Illness	1(0.9)	6 (5.4)

Table (5): Diagnostic difference between provisional (ER) and final diagnoses

Diagnosis	Same diagnosis N (%)	Different diagnosis N (%)	Chi-square	P- value
Psychotic disorders	32(56.1)	10(18.2)	19.08	0.002
Affective disorders	9(15.8)	11(20)		
Neurotic & stress related disorders	10(17.5)	21(38.2)		
Culture bound syndromes	1(1.8)	1(1.8)		
Other psychiatric disorders	4(7)	7(12.7)		
No Mental Illness	1 (1.8)	5(9.1)		

Table (6): Comparison between ethnic groups in provisional (ER) and final diagnoses

Diagnosis	South East Asian		Mediterranean		African		Asian		Other	
	ER	Final	ER	Final	ER	ER	Final	ER	Final	ER
Psychotic disorders	57 (85%)	35 (83.3%)	4 (6%)	3 (7.1%)	1 (1.5%)	00	5 (7.5%)	4 (9.5%)	00	00
Affective disorders	2 (20%)	8 (40%)	4 (40%)	7 (35%)	2 (20%)	3 (15%)	1 (10%)	1 (5%)	1 (10%)	1 (5%)
Neurotic & stress related	12 (75%)	28 (90%)	2 (12.5%)	1 (3.2%)	1 (6.3%)	1 (3.2%)	00	00	00	1 (3.2%)
Culture bound disorders	1 (100%)	2 (100%)	00	00	00	00	00	00	00	00
Other psychiatric disorders	3 (75%)	9 (81.8%)	1 (25%)	1 (9.1%)	00	00	00	1 (3.2%)	00	00
No mental illness	1 (100%)	6 (100%)	00	00	00	00	00	00	00	00
For investigation	12 (92.3%)	00	1 (7.7%)	00	00	00	00	00	00	00

χ^2 for ER diagnosis is 35, df= 24 and p-value was 0.06 (NS) χ^2 for final diagnosis is 34.8, df= 20 and p-value was 0.02 (significant)

Table (7) shows correlations between ethnicity and diagnostic difference

Ethnic group	Same diagnosis N (%)	Different diagnosis N (%)	χ^2	p- value
South East Asian	40(45.5)	48(54.5)	5.6	>0.05
Mediterranean	8 (66.7)	4(33.3)		
African	3(75)	1(25)		
Yemen	4(66.7)	2(33.3)		
Other	2(100)	-		

DISCUSSION

In the current study, South East Asians and females were overrepresented because the majority was females coming from South East Asian countries to work as housemaids. The families have low tolerance to any behavioral disturbance of their housemaids so they referred them rapidly to psychiatric ER or to legal agencies for help. That's why there are apparent differences in the way of seeking help behavior. Similar studies investigating help seeking indicated that members of ethnic minority groups have less access to psychiatric care and greater unmet needs for care and that ethnic differences influence the manner by which mentally ill patients are referred for and receive treatment⁷⁻¹⁰. Also, compulsory admissions are more among ethnic minorities, immigrants or foreigners^{9, 11-12}.

These observations suggest that ethnicity affects the pattern of stress vulnerability and tolerability. Foreigners especially South East Asians who come from completely different cultures usually have poor socioeconomic status in their original countries. When they travel to another country as Saudi Arabia for money-making, they often face multiple social problems and are exposed to uncertain residency and legal status which make them more vulnerable to stress. Thus poor adapting foreigners may develop cultural bound and neurotic disorders shortly after coming to Saudi Arabia and may develop psychotic or affective disorder if they stay for a longer duration.

Another important finding from this study, clinicians showed more tendency to diagnose psychotic disorders in South East Asians and Asians and to diagnose affective and neurotic disorders more in

Mediterranean and African patients. Although there was statistically significant diagnostic difference between ER and final diagnoses especially in diagnosing affective and neurotic disorders among the whole sample, yet, this tendency did not change markedly after the second evaluation.

All clinicians working in the studied hospital have Arabic culture background and because of this difference, it was expected that the clinician's ability to accurately identify an underlying psychotic or affective illness in other ethnic groups may be impaired. This sounds reasonable and explains the occurrence of high admission rates especially in South East Asians for more understanding of symptoms and accurate diagnosis. In accordance, patient race was significantly associated with diagnostic disposition and disagreement and attributed this to ethnic bias on part of clinicians who belong to cultural and socioeconomic backgrounds different from those of patients¹³.

Although previous studies¹³⁻¹⁵ as well as the current one reported ethnic differences in psychiatric presentations and diagnosis still the reasons remain unclear. Investigators have proposed several hypotheses. One explanation is that there are actual ethnic differences in rates of psychiatric disorders³. There are common risk factors among foreigners in Saudi Arabia as they have temporary work contracts, they are loaded by economic and social stresses from their origin, and commonly have low SES and poor social support in addition to the different cultural background. All these factors place those minorities under considerable stress, feeling of alienation and make them more predisposed to mental illness. In addition, they are more liable to

differences in pathways to care and service than the original population, risk of misdiagnosis and higher admission rates. Another factor is the racial/ethnic differences in symptom pronunciation³ which may also account for diagnostic difference in this study. Another reason that information variance (differences in the clinical data recorded) rather than criterion variance (difference in application and interpretation of diagnostic criteria) is the cause of diagnostic disagreement in 58% of cases and is associated with patient race¹³. Agreeing with this idea, many foreign patients in this study lack validating information as provided by the sponsor or legal agencies, not by their original families. Nevertheless, the important weight of criterion variance could not be minimized in this study because of high ethnic/cultural discrepancy between clinicians and patients and lack of well-trained translators. Although regression analysis showed that diagnostic difference was only related to presenting complaints and symptoms after observation, however, differences in language, education, religion, social status (despite non-significance) as well as difficulties in identifying and understanding the cultural significance of behaviors or symptoms may add to difficulties in clinical diagnosis. Because of cultural and language barriers, final diagnosis was made after admission and observation of symptoms which places overload on mental health services in Saudi Arabia.

Several limitations should be considered when interpreting these data as the sample was not representative of all foreigners in Saudi Arabia and the numbers of patients in different ethnic groups were unequal which may affect analysis of data. Also, the majority of the sample was females which

did not help in investigating the effects of gender on diagnosis. It was difficult to use systematic structured interviews because they were all in Arabic and not standardized except for Saudi patients. That's why this study cannot be directly comparable with other studies. Lastly, lack of mental health professionals who are fluent in Asian languages added to difficulties in diagnosis.

In summary, ethnic differences possibly exist in psychiatric diagnosis and disposition from psychiatric ER. South East Asians are more likely to be hospitalized and more commonly labeled with psychotic and neurotic disorders. However, the probability of diagnostic bias remains present because of cultural gap between clinicians and foreign patients. It is very important for clinicians to know the ethnic/cultural background of their patients as it shapes the expression of psychiatric disorders. It is also important for policy makers and service providers in Saudi Arabia and gulf region to take into consideration the mental health problems of the growing foreign population. Thus further randomized controlled research taking into account the above limitations is needed to clarify the effects of ethnicity, race and cultural differences on the clinical presentation, decision-making of diagnosis, admission and treatment choice of foreign population especially in the Arab gulf countries. Lastly, the development and validation of psychiatric assessment tools specific for foreigners is highly needed to overcome language and cultural barriers.

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