

A comparative study of Arab and Jewish patients admitted for psychiatric hospitalization in Jerusalem: the demographic, psychopathologic aspects, and the drug abuse comorbidity

Gregory Katz^{a,*}, Leon Grunhaus^a, Shukrallah Deeb^a, Emi Shufman^a,
Rachel Bar-Hamburger^b, Rimona Durst^a

^aThe Jerusalem Mental Health Center-Kfar Shaul Hospital, Jerusalem, Israel

^bThe Israel Anti Drug Authority, Jerusalem, Israel

Abstract

Background: The influence of ethnicity on different aspects of psychiatric hospitalization is far from clear.

The Aim of the Study: The main aim of the study was to compare the Arab and the Jewish inpatients, at the time of admission, for the demographic factors, severity of psychotic, and affective psychopathology and comorbid drug abuse rate.

Population, Method, and Tools: Among 250 consecutively admitted patients in the Jerusalem Mental Health Center-Kfar Shaul Hospital, 202 Jews and 42 Arabs (aged 18–65 years) were examined within 48 hours after admission. The psychiatric diagnoses were made according to the criteria of *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. For the differential measurement of psychopathologic severity, the following rating scales were used: 21-item Hamilton Depression Rating Scale, Hamilton Anxiety Rating Scale, Positive and Negative Syndrome Scale (PANSS), and Young Mania Rating Scale. Urine tests for Δ^9 -tetrahydrocannabinol (THC), cocaine, opiates, amphetamines, and methamphetamine were performed using the Sure Step TM kits (Applied Biotech, Inc, San Diego, CA, USA). The Structured Clinical Interview *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*, criteria for drug abuse were applied based on self-report and results of urine analysis.

Results: The comparison of the 2 population showed that among the Arab inpatients, there were more males (81% vs 67.4%; $P < .005$). No significant difference in psychiatric diagnosis was observed. The overall severity of positive symptoms (PANSS positive) in Arab group was higher, but only slightly so ($P = .05$). No significant difference was observed for total rates of PANSS negative subscale. The rates of PANSS-general were also similar. The Arab patients were significantly less depressive according to 21-item Hamilton Depression Rating Scale ($P = .032$), and the total score of Hamilton Anxiety Rating Scale for the Jewish group was significantly higher ($P = .001$). No significant difference in general severity of manic symptoms for 2 groups was detected according to Young Mania Rating Scale. The rate of comorbid drug abuse for Jewish inpatients was borderline higher ($P = .068$).

Conclusions: The issue of referral to psychiatric hospitalization could be culturally influenced; it may be the result of disparities in demographic, psychopathologic, and drug abuse comorbid presenting symptoms, which are demonstrated upon admission by patients of different ethnic origins.

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1. Introduction

Ethnicity is one of the important factors for understanding the different aspects of mental disorders [1,2]. In recent years, there has been an effort to compare the frequency of different mental problems among the Arab and Jewish

populations in Israel. In the study of Gelkopf et al [3], the Arab minority and the Jewish majority were compared on measures of exposure to terrorism, posttraumatic stress symptoms, feeling depressed, coping, sense of safety, future orientation, and previous traumatic experiences. After 19 months of terrorist attacks, Arab Israelis and Jewish Israelis reacted roughly similarly to the situation; however, after 44 months of terror, posttraumatic symptom disorder in the Arab population increased 3-fold, posttraumatic symptoms doubled, and resiliency almost disappeared. Tracy et al [4]

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* Corresponding author.

E-mail address: ngkatz@012.net.il (G. Katz).

sought to assess the predictors of depressive symptoms in a population-based cohort exposed to ongoing and widespread terrorism. They interviewed a representative sample of adults living in Israel, including both Jews and Arabs. In multivariable models, Israeli Arab ethnicity, lower household income, lower social support, experiencing economic loss from terrorism, experiencing higher levels of psychosocial resource loss, and meeting criteria for posttraumatic stress disorder were significantly associated with increased severity of depressive symptoms. Palmieri et al [5] used nationally representative samples to examine the impact of war on civilians, after the Israel-Hezbollah War (July to August 2006). The aims of this study were to document probable posttraumatic stress disorder (PTSD), determined by the PTSD symptom scale and self-reported functional impairment, in Jewish and Arab residents of Israel immediately after the Israel-Hezbollah War and to assess potential risk and resilience factors. The rate of probable PTSD was 7.2%. Higher risk of probable PTSD was associated with being a woman, recent trauma exposure, economic loss, and higher psychosocial resource loss in both ethnic groups. The level of psychologic distress seems to differ for Jewish Israelis and Arab Israelis in various conditions. Ponizovsky et al [6] reported results of an Arab-Jewish comparative study of emotional distress among first-time patients attending outpatient mental health clinics in Israel. Compared with Jewish patients, Israeli Arab patients had a higher “distress caseness” rate based on 12-item General Health Questionnaire score and a higher rate of psychiatrist-detected *International Statistical Classification of Diseases, 10th Revision*, stress-related disorders but a lower rate of self-reported emotional distress and symptoms of mood disturbances. The information regarding different aspects of psychiatric hospitalization for both ethnic groups is rather scarce. Jerusalem, in spite of its known political and religious problems, is the unique place for the research of cultural and ethnic factors of psychiatric morbidity. The Jerusalem Mental Health Center–Kfar Shaul Hospital has a multinational team that provides psychiatric hospitalization treatment for both Jewish and Arab populations in Jerusalem, which provides an opportunity for comparative transcultural research of inpatients.

2. The aim of the study

The main aim of the study was to compare the Arab and the Jewish admitted inpatients for demographic factors and severity of psychotic and mood psychopathology. The rate of comorbid drug abuse was also evaluated separately for both groups.

3. Population, method, and tools

Of 250 patients consecutively admitted in the Jerusalem Mental Health Center–Kfar Shaul Hospital, 202 Jews and

42 Arabs (aged 18–65 years) were examined within 48 hours after admission. The psychiatric diagnoses were made according to the criteria of *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*. For the differential measurement of psychopathologic severity in psychotic and affective patients (38 Arabs and 179 Jews), the following rating scales were used: 21-item Hamilton Depression Rating Scale (HAM-D-21), Positive and Negative Syndrome Scale (PANSS), and Young Mania Rating Scale (YMRS). Hamilton Anxiety Rating Scale (HAM-A) was used in all patients. Urine tests for THC, cocaine, opiates, amphetamines, and methamphetamine were performed using the Sure Step TM kits (Applied Biotech, Inc, San Diego, CA). The Structured Clinical Interview *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*, criteria for drug abuse were applied using self-report and results of urine analysis.

Informed consent was obtained according to the Helsinki declaration demands.

4. Statistical analysis

χ^2 Test was used to analyze statistically significant relationships in the distribution of categorical values. The *t* test on the contingency tables was used to compare rates of PANSS, YMRS, HAM-D-21, and HAM-A scales and subscales for the Arab and Jewish inpatients groups. $P < .05$ was considered statistically significant.

5. Results

Some demographic differences between 2 groups were detected: among the Arab inpatients, there were more males (81% vs 67.4%; $P < .005$). The average educational level in the Jewish group was higher (11.5 ± 3.0 vs 8.6 ± 4.1 years; $P < .005$); the age range was rather similar (36.1 ± 11.1 for the Jewish inpatients vs 35.0 ± 12.4 for the Arabs). No significant difference in psychiatric diagnosis was observed (Table 1).

5.1. PANSS scales and subscales

The overall severity of positive symptoms (PANSS positive) in the Arab group was higher, but only borderline (18.6 ± 7.8 vs 16.1 ± 7.0 ; $P = .051$). In the P3 subscale (hallucinatory behavior), the difference was significantly higher for the Arab inpatients ($P < .005$). In the other PANSS positive subscales (except P-4, excitement), the rate for of the Arab group was higher, but not significantly.

As for the negative symptoms (PANSS negative), no significant difference was observed for total rates (31.3 ± 8.2 for the Arabs vs 30.7 ± 7.7 for the Jews). In the subscales, no clear tendency was obvious.

The rates of PANSS-general were also similar (15.6 ± 5.7 for the Arab patients vs 30.7 ± 7.7 for the Jews), but in

Table 1
The main psychiatric diagnosis and rates of active drug abuse (last month)

	Arabs, n = 42	Jews, n = 202
Organic disorders	5 (11.9%)	24 (11.9) ns
Schizophrenia, schizoaffective disorders	27 (64.2%)	111 (54.9%) ns
Mood disorders	6 (14.3%)	46 (22.8%) ns
Anxiety disorders	2 (4.7%)	10 (4.9%) ns
Personality disorders	2 (4.7%)	11 (5.4%) ns
Cannabis abuse	4 (9.5%)	36 (17.8%) ns
Opiates' abuse	1 (2.4%)	20 (9.9%) ns
Amphetamine abuse	1 (2.4%)	6 (2.9%) ns
Methamphetamine abuse	2 (4.8%)	13 (6.4%) ns
Cocaine abuse	1 (2.4%)	6 (2.9%) ns

ns = statistically nonsignificant.

differential analysis of the subscales severity rates, some dissimilarity was observed. The rate for the Arab group was significantly lower for G-6 (depression; $P < .001$) and G-7 (motor retardation; $P < .01$) but higher for G-9 (unusual thought content; $P < .001$) and G-10 (disorientation; $P < .05$).

5.2. Hamilton Depression Rating Scale

The Arab patients were significantly less depressive according to HAM-D-21 (6.8 ± 6.8 vs 10.9 ± 11.3). In the symptom of depressed mood (D1), the difference was highly prominent ($P < .0005$) as for diurnal variation ($P < .00001$), depersonalization and derealization ($P < .0005$), and hopelessness ($P < .001$). Symptoms with less significant difference were retardation ($P < .05$); agitation ($P < .05$); anxiety psychic ($P < .05$); and somatic symptoms, gastrointestinal ($P < .05$). In the most other symptoms, the rates for Arab group were lower, but not significantly; for paranoid ideations and obsessive and compulsive symptoms, rates were insignificantly lower for Jewish patients.

5.3. HAM-A

The total score for the Jewish group was significantly higher (4.4 ± 5.0 vs 2.3 ± 3.7 ; $P = .001$). In all the symptoms, the tendency was the same, but it reached statistical significance only for anxiety mood ($P < .0005$), insomnia ($P < .005$), intellectual ($P < .001$), and depression ($P < .005$).

5.4. YMRS

Upon admission, no significant difference in general severity of manic symptoms for the 2 groups was detected (15.0 ± 11.6 for the Arab group vs 12.4 ± 13.7 for the Jewish patient), although in most symptoms, the rates of Arab patients were nonsignificantly higher. For manic content symptom, the difference reached statistical significance ($P < .005$) as well as for manic appearance symptom ($P = .001$). For symptoms of mood elevation, manic speech, and insight problems, the rates were not significantly higher for the Jewish group.

5.5. Drug abuse comorbidity

In the Jewish patients' group, 56 (27.7%) were also diagnosed as active (in last month) drug abuser via urine tests and/or self-report, and only 6 patients (14.2%) in the Arab group were dual diagnosed ($P = .068$).

The same tendency (which did not reach statistical significance) was observed when the 2 groups were measured for cannabis, opiates, and stimulants (amphetamine, methamphetamine, and cocaine) abuse separately (Table 1).

6. Discussion

The results of our study suggest that there are some differences in admission criteria for psychiatric hospitalization between the Arab and the Jewish patients regarding demographic, psychopathologic aspects, and drug abuse comorbidity. In our sample, most admitted Arab patients were males. In general Arab population, females are aware of the stigma associated with seeking psychiatric services and the risk of jeopardizing both their honor and marital prospects [7].

As for psychopathologic aspects, obvious dissimilarity was observed in intensity of depressive symptoms and anxiety as the Arab patients showed significantly lower scores. The possible explanations could be found in the relatively low number of female inpatients in the Arab group as well as in difficulties in proper diagnosis of mood symptoms when patients and therapist are not from same cultural and ethnic background.

The patients in our sample were having both psychotic and mood disorders. It reflects the real-life heterogeneity and difficulty in differential diagnosis of mood and psychotic symptoms. In the literature, there is growing number of publications about possible overlap in genetic and non-genetic etiologic influences in schizophrenia and bipolar disorder [8] and its clinical presentations [9,10]. According to these data, we decided to perform tests using all questionnaires for all patients regardless of the diagnoses.

Upon psychiatric admission, the patients from minority groups were more likely to receive a less-defined diagnosis, such as psychosis not otherwise specified [11] or schizophrenia instead of mood disorders [12,13]. Our results support the explanation that, in these groups, the mood symptoms are often misdiagnosed for psychotic ones.

The cultural attitudes toward psychiatric hospitalization could be another reason for the aforementioned difference. There is no reason to think that the Arab population in Israel suffers less from depression and anxiety, but these symptoms probably are less justified as the cause for hospitalization or outpatient treatment. Our data correlate with the result of a recent large scale epidemiological comparative study of mental problems in general Arab and Jewish population [14] where no statistically significant differences between Arab-Israelis and Jewish-Israelis in the 12-month

prevalence rates of any anxiety disorder were found. The overall rate of mood disorders in the general Arab population was borderline higher than in the Jewish population. Considerably higher proportion of Jewish-Israeli than Arab-Israeli respondents, both men and women, sought the medical help for affective disorder in the last 12 months.

The difference in severity of active psychotic signs was not so convincing as for anxiety and depression. The higher severity of positive symptoms in the Arab Israeli group could be rooted in some treatment lag in this group [15]. This delay could be associated with lower schooling, other-than-psychiatric attribution of mental symptoms, and a more pessimistic attitude to the chance of successful treatment of mental disorders in general and for oneself in particular.

Our results did not show differences between the 2 groups as for level of negative and general symptoms in PANSS and for manic signs in YMRS. In our view, the presence of these symptoms makes psychiatric hospitalization more culturally justified and acceptable for both ethnic groups.

The drug abusers level among the general Arab population in Israel is not lower than for the Jews [16,17]. The overall rate of comorbidity of major psychiatric disorders and drug abuse for local psychiatric inpatients has risen in last decade to the average figures in the Western world [18]. Our current results showed, surprisingly, a borderline higher rate of comorbidity of major psychiatric problems and active drug abuse for Jewish inpatients. It is still unclear whether these data reflect the different cultural pattern of comorbidity or whether they indicate problems of detection of the drug abuse in the Arab group when the results were based on the urine testing and self-reports. Disparity of self-report and laboratory tests was reported for some minority groups [19].

To summarize the discussion, we suggest that the issue of referral to psychiatric hospitalization could be culturally influenced, which may lead to some differences in demographic, psychopathologic, and drug abuse comorbid presenting symptoms at admission of patients of different ethnic origins.

7. Limitations

The study had some obvious limitations—the Arab group was relatively small, most interviews in this group were performed with translation (although made by professional staff members). The Arab population of Jerusalem has some cultural and political differences from other Arab groups in Israel. The Jewish group included the ultraorthodox religious patients with their known special cultural background. The demographic differences between the Arab and the Jewish group made the comparison of psychopathologic features more complex. The issue of specificity and sensitivity of PANSS for affective patients and Hamilton Depression Rating Scale and YMRS for schizophrenic patients could be seen as an another limitation of the study.

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