

Cultural imprint on Symptom profile of mood disorders: An epidemiological study in different subcultural sites in a Nile delta governorate

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الأثر الثقافي على أعراض اضطرابات المزاج: دراسة في علم أوبئة في المواقع الثقافية الفرعية المختلفة في محافظة من دلتا النيل

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Abstract

Affective disorders are the most common psychiatric disorders. Their symptoms profile varies in different cultures. Several studies try to identify a core syndromal symptoms and secondary manifestations of the syndrome that changes with geographical, socioeconomic, and cultural areas or political status.

Objective: is to find out the differences in clinical symptoms profile of mood disorders between rural and urban areas in Egypt.

Method: A sample of people was selected using the multistage random sampling technique then a survey study was done using Mini Inter National Neuropsychiatric Interview over 600 people from two villages and 400 people from two cities in Dakahlia governorate. All patients who were diagnosed as mood disorder according to DSM IV TR criteria enter depth study including complete physical and neurological examination to exclude organic causes and clinical symptoms profile of mood disorders in rural and urban population, according to (DSM-IV TR).

Results: There was a statistically significant difference between rural and urban population as regard prevalence of major depressive disorder (9.5%, 6.6%) (p 0.023) while there are no statistical differences as regard other mood disorders The depressed mood, lost appetite, low energy, death ideas, motor retardation and somatic symptoms were statistically significant more among rural population while lack of pleasure, insomnia, lack of concentration and agitation were significant more among urban population. There is no significant statistical difference between rural and urban population regarding most of manic symptoms.

Conclusion: the culture effect on mood disorder is more prominent in depression than in mania.

Key ward: culture, depression, epidemiology, mood, Egypt

Declaration of interest: None

Introduction

Affective disorders are the most common psychiatric disorders, and their frequency in clinical and community populations has been the subject of considerable research¹. A recent, extensive review of most studies

contains estimates of a life time prevalence of 17% to 20% and one-year prevalence 5% to 8%.².

There are several conflicting findings on symptoms manifestations of mood disorders in different cultures. International studies have identified a

core of depressive syndrome in patients in diverse geographical and cultural areas, regardless of developmental, socioeconomic, or political status³ cultural elements appear to influence the expression of a number of secondary manifestations of the syndrome. Guilt and suicidal tendencies, for example, have been found to be rare in depressed individuals from developing cultures⁴, but an excess of somatization or hypochondriacal features have been found to be common in those countries.⁵, unfortunately, methodological problems limit generalization of these reports. Two recent studies using more sophisticated methods have reinforced the original observations of increased somatization in developing societies. WHO⁶ and Stefanson, et al,⁷ showed that a significant majority of psychiatric patients attending primary health facilities in four developing countries (Colombia, the Philippines, Sudan, and India) cited only physical symptoms as presenting complaints.

Murphy⁸ tried to draw profiles of depressive symptoms reported from different European countries. He noticed that the French have a rather low incidence of suicide with a high incidence of somatic preoccupation, the Germans have a high incidence of anorexia, the polish a higher incidence of preoccupation with poverty and the suicide, Pacheri et al⁹ concluded that the diagnostic criteria of depressed neurotic psychopathology seemed to be much stricter in the Swiss population than in Italian one and that some manifestations

of anxiety and depression are tolerated more readily in an Italian context than in the Swiss. Perris, et al¹⁰ reported that Italian patients have high score to motor retardation, hypochondriasis, hopelessness, loss of interest and dissatisfaction, and Swedish patients have agitation, weight loss, and tachycardia.

Mood disorder symptoms profile varies in different cultures. Several studies try to identify a core syndromal symptoms and secondary manifestations of the syndrome that changes with geographical, socioeconomic, and cultural areas or political status. Our aim of the work is to differentiate between rural and urban communities in clinical symptoms profile of mood disorders.

Study design

1- Place and time of the study: This study was carried out in the period from January 2004 to January 2005. In randomly selected geographical areas in Dakahlia governorate representing both the rural and the urban population.

2- Methodology and sample size: A cross sectional study was carried out on a suitable sample size of rural and urban areas.

The first step of the study (location of study) 3 centers were chosen randomly, (Mansoura center representing urban area, Met Salseel and Dekirins representing rural areas).

- A. **Sampling technique from rural areas:** a sample from rural areas was selected using the multistage random sampling technique as follow:
First stage of the study: 2

centers were chosen randomly from all centers in Dakahlia governorate. They were Dekirnis and Met Salseel, whose populations are 27.342 and 59202 respectively. **The second stage:** 2 villages has been selected by (simple random method) from the above two centers. These villages are El-Kobab El sogra from Dekirnis center and El-Ethad from Met Salseel center whose population are 7645 and 6103 respectively. **The third stage is selection of houses:** all houses would be enumerated and a (systematic random sample) is obtained by choosing every 15th house.

- B. **Sampling technique from urban area:** samples from urban areas were chosen using (multistage random sampling) technique as follow: **The first stage:** East and west districts whose population were 180834 and 222810 respectively would be divided into multiple locations. **The second stage:** 2 locations one from each district was chosen randomly. The locations are Ezbet Shall and El Hawoar whose population were 40493 and 39493 respectively. **The third stage:** Each region was divided into streets. The streets under investigation were chosen randomly. Each street was divided into houses which

was chosen by (systematic random sample), in which the house number 15 was the one chosen.

The second step of the study (Determination of the sample size): The sample size was calculated using total population in Dakahlia is (4,808 million people). The expected frequency of mood disorder 18% according to Weissman and Klermans¹¹, the worst expected frequency is 20% at level of confidence 95%, so the sample size was 1417 according to Epi info WHO (2000). The sample size would be 2000 nearly to avoid error defaulter, drop out of cases. The sample was divided into two parts according to population in which percentage of rural / to urban areas was 2/3: 1/3 of total simple size, so 600 nearly would be taken equally from two sites of rural area whose El kobab El Sogra and El Ethad and 400 nearly would be taken equally from two urban areas whose Ezbet El shall and El Hawoar. (Epi Info version 5.01 October 2000) (Public Domain software for epidemiology and disease surveillance).

Pilot study was performed for one month in Mansoura out patient clinic to satisfy following aims: **1)** Assess the ability of the subjects to understand the used questionnaire, gain training of investigator and to determine the method of administration of the questionnaires. **2)** Assess the reliability of the clinical diagnosis

First, Permission was taken from Faculty of Medicine of Mansoura University for this study performing.

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Permission was taken from health center concerned with these areas.

Data collection: Data was collected after taking informed consent from chosen people after discussing with them about the aim of the study. **A survey study** was done by using Mini Inter National Neuropsychiatric Interview:¹¹. **Depth study:** All patients who were diagnosed as mood disorder according to DSM IV TR criteria (verification of the diagnosis was done by two independent psychiatrists holding a master degree with 2 years clinical experience) and fulfilling the following criteria were taken for the in-depth study:- **Inclusion criteria:** Above 18 years and of both sexes. **Exclusion:** Mental subnormality, Dementia, delirium and other cognitive disorders, Mood disorder due to general medical condition and Mood disorder due to substance use.

Those diagnosed as having disorders (total 202 patients, 167 depression, and

35 manic patients) (138 patients from rural area and 64 from urban area) from the previous steps were subjected to the following:

- Complete physical and neurological examination to exclude organic causes.
- Clinical symptoms profile of mood disorders in rural and urban population, according to (DSM-IV TR).

Results

Table (1) shows depressive symptoms among depressed patients in rural and urban areas. The depressed mood, lost appetite, low energy, death ideas, motor retardation and somatic symptoms were statistically significant more among rural population while lack of pleasure, insomnia, lack of concentration and agitation were significant more among urban population.

Table (1): Depressive symptoms among depressed patients in rural and urban population according to DSM IV-TR:

	Depression							
	Rural (n=114)		Urban (n=53)		Total (n=167)		Chi square	
	n	%	n	%	n	%	X ²	P
Dep mood	109	95.6%	37	69.8%	146	87.4%	21.911	.000***
Lack of pleasure	15	13.0%	29	49.2%	44	25.3%	26.911	0.000***
Lost appetite	74	64.3%	17	28.8%	91	52.3%	19.737	0.000***
Inc appetite	8	7.0%	3	5.7%	11	6.6%	.108	0.742
Insomnia	47	41.2%	31	58.5%	78	46.7%	4.331	0.037*
Hypersomnia	7	6.1%	4	7.5%	11	6.6%	0.116	.733
Low energy	89	78.1%	27	50.9%	116	69.5%	12.551	.000***

Low SE	36	31.6%	18	34.0%	54	32.3%	0.094	0.759
Lack conc.	67	58.8%	40	75.5%	107	64.1%	4.383	0.036*
Death ideas	17	14.9%	2	3.8%	19	11.4%	4.452	0.035*
Agitation	26	22.8%	20	37.7%	46	27.5%	4.040	0.044*
Motor retard	45	39.5%	11	20.8%	56	33.5%	5.688	0.017*
Somatic	50	43.9%	14	26.4%	64	38.3%	4.658	0.031*
guilt feeling	13	11.4	5	9.4	18	10.8	0.13	0.71

Table (2) shows manic symptoms among manic patients in rural and urban population. There are no significant statistical differences between rural and urban populations regarding all

symptoms except disruptive behavior which was significant more among rural population and irritable mood which was significant more among urban population.

Table (2): Manic Symptoms among bipolar patients in rural versus urban according to DSM IV-TR:

	Residence						Chi square test	
	Rural (n=24)		Urban (n=11)		Total (n=35)		X ²	P
	n	%	n	%	n	%		
Elevated mood	18	75%	6	54.5%	24		1.469	>0.05
Irritable mood	6	25%	5	45.5%	11			
Grandiosity	10	41.7%	5	45.5%	15	42.9%	0.044	0.833
Increased motor activity	23	95.8%	10	90.9%	33	94.3%	0.339	0.560
Increased pleasure activity	12	50.0%	7	63.6%	19	54.3%	0.565	0.452
Decreased need to sleep	23	95.8%	11	100.0%	34	97.1%	0.472	0.492
Talkativeness	24	100.0%	11	100.0%	35	100.0%	-	-
Flight of ideas	16	66.7%	8	72.7%	24	68.6%	0.129	0.720
Distractibility	14	58.3%	6	54.5%	20	57.1%	0.044	0.833
Disruptive behavior	12	50.0%	2	18.2%	14	40.0%	3.182	0.047

Discussion

Regarding depressive symptoms in patients with depression and dysthymia in rural versus urban population: in the present study it was found that, low energy, insomnia and depressed mood were more common than other depressive symptoms in both population. This result gives more evident to the previous study which reported that these symptoms have a biological base rather than cultural factors. This agreed with Pfeiffer¹² who found that no marked variations could be observed across different cultures. He reviewed 40 reports from non-western countries and concluded that in these countries the core symptomatology of depression is quite comparable to the depressive symptoms described in the West. He identified mood changes, loss of sleep, appetite and libido, and variation in diurnal-rhythm as the core depressive symptoms, while he found that guilt, hopelessness and hypochondriasis were modified by culture. Also, the WHO collaborative study on depression identified a core of depressive symptoms in the majority of cases in the 5 participating centers. These include sadness, joylessness, anxiety and tension, lack of energy, loss of ability to concentrate and ideas of inadequacy and worthlessness⁶.

On the other hand, the present study shows that there were many secondary syndromal manifestations that change with cultural factors as, agitation, insomnia and lack of concentration were more common in urban

depressive and dysthymic patients but motor retardation, lost appetite, depressed mood and low energy were more common in rural depressive patients. However this result was expected to some extent and may be explained by urban population subjected to many stressors as overcrowding, pollution and low financial resources in comparison to the increasing need for civilization.

Also it was found that, somatic symptoms were more common in major depression and dysthymia of rural population than urban population. This may be explained by rural subjects who tend to translate their feelings into body language. This may be because of a greater social acceptance for physical complaints than psychological complaints, which are either not taken seriously or rarely believed to recover with some rest or extra praying. They mask their effect with multiple somatic symptoms which occupy the foreground and the affective component of their illness recedes to the background. Accordingly, they either resort to the general practitioner or the primary health care physician asking for unnecessary investigations which are costly for a developing country or they ask the traditional healers to alleviate their sufferings. A considerable number did not ask for help at all, especially in rural population, in which absenteeism from work or in ability to face day to day affairs are not much criticized by their community.

Lack of pleasure was more common in urban than rural population with highly significant differences. This may be explained on the basis of existence of means of recreation and entertainment available to urban population and relatively unavailable in rural life. Guilt feelings and suicidal ideation were less than other depressive symptoms in both population and this agrees with **El-Islam et al**,¹³ who found that guilt feelings and suicidal ideation and behavior were not frequently present in Kuwait. Two explanations have been involved namely the persisting influence of Islam compared to the declining presence of Christianity in the west and a different social fabric allowing cohesiveness and reinforcing belonging rather than individuality and social alienation in the West.

On the other hand suicidal ideations were more common in rural population in contrast to urban population in spite of religious attitudes so religion seems to suppress the actions but not the thoughts. This agrees with previous studies conducted by^{14, 15}.

The present study supports the result of **Okasha et al**,¹⁴ revealed some differences between western and Egyptian populations. In Egypt, depression is manifested mainly by agitation, somatic symptoms, hypochondriasis, physiological changes

such as decreased libido and anorexia, and insomnia, which is not characterized by early morning awakening symptoms, also ideas of guilt, sin and reproach are not common in Egyptian patient.

In reference to Manic symptoms among bipolar patients in rural versus urban population: the present study found that, talkativeness, decreased need to sleep, and increased motor activity were the most common symptoms in bipolar patients of both populations (100%, 95.8%). However, distractibility, flight of ideas and grandiosity were nearly equal in both populations this may reflect that the biological base of this disorder plays a greater role in pathogenesis of these symptoms than cultural and environmental factors. On the other hand, disruptive behavior was more common in rural patients than urban patients (50%,18.2%) this may be explained by the fact that low level of education and social classes were more observed among rural population which have major coloring of this type of behavior.

Murphy et al,¹⁶ revealed that the variations in the symptomatology of mania are less easy to assess due to the unavailability of that diagnosis in the past and overlap with reactive psychosis and schizophrenia.

Recommendations

- Further studies in different Governorates could be done, with the aim of cooperation between different governmental studies in order to reach a full organized mental health policy in Egypt. Also for actual assessment of morbidity risk, so effective policy should address the primary, secondary and tertiary prevention approaches.
- Comparative studies in epidemiology of psychiatric disorders in Arab countries could be done and compare it to data obtained from western countries that have different urbanization profile.
- We should improve the orientation of the general practitioners about psychiatric disorders especially mood disorders. They would be trained for early detection and intervention and/or refer them to the nearest psychiatric center which can provide psychiatric help instead of doing many investigations and prescribing many medications, which are expensive and spares time, which has adverse effects on the economy.

المُلخَص

الاضطرابات العاطفية هي أكثر الاضطرابات النفسية شيوعاً. إلا ان أعراضها تتفاوت في الثقافات المختلفة. في عدة دراسات صينية لتمييز الأعراض الأساسية و الثانوية من المتلازمة الذي يتغيران بالمناطق الثقافية والاجتماعية الاقتصادية والجغرافية أو المنزلة السياسية. الهدف من الدراسة: أن يتم اكتشاف الاختلافات في الأعراض السريرية لاضطرابات المزاج بين المناطق الريفية و الحضرية في مصر. الطريقة: تم اخذ عينة من الناس بإستعمال تقنية العينة العشوائية المتعددة المراحل ثم عمل دراسة مسح عمّلت و مقابلة نفسية لأكثر من 600 شخص من قرينتين و 400 شخص من مدينتين في محافظة الدقهلية وبعد ذلك كل المرضى الذين تم تشخيصهم كمرضى مزاج طبقاً لدي إس إم الرابعة معايير تي آر يدخلون دراسة اعمق لاكتشاف الفرق بين الريف و الحضر في الأعراض السريرية لاضطرابات المزاج. النتائج: كان هناك إختلاف هام بشكل إحصائي بين الريفيين والحضرين بالنسبة لنسبة انتشار النوبة الاكتئابية (9.5% , 6.6%) بينما ليس هناك إختلافات إحصائية في نوبات المزاج الاخرى. كما لوحظ ان فقد الشهية ، انخفاض الطاقة الأفكار المتعلقة بالموت، انخفاض معدل الحركة والأعراض الجسدية كانا أكثر انتشاراً بشكل إحصائي بين سكان الأرياف عن الحضر . بينما قلة السرور، أرق، قلة التركيز والهيلاج كانا أكثر انتشاراً بين الحضرين. ليس هناك إختلاف إحصائي هام بين ريفيين وحضرين بخصوص أغلب الأعراض الهوسية. الخاتمة: إن تأثير الثقافة على فوضى المزاج أكثر بروزاً في الكأبة من الهوس.

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