Prevalence of psychiatric emergencies
attending Emergency department in Sharkia

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Background: - Psychiatric emergencies make up a large number of conditions treated by emergency room physicians. It is mostly first seen by non-psychiatrists in emergency departments.

Aim of Work: *- To ascertain the prevalence and evaluate the Socio-demographic data, alertness, and rates of hospitalizations and severity of psychiatric emergency cases.*

Subjects and Methods: *- out of 11,699 attendant patients at medical emergency department, 200 patients with psychiatric emergency were recruited for this cohort study. Patients were submitted to medical assessment and psychiatric evaluation by semi-structured clinical interview, mini-mental state examination, brief psychiatric rating and Crisis Triage Rating Scales.*

Results: *- 200 (1.71%) patients (97 males, 103 females, and aged 29±12.5) with psychiatric emergency attended ZUH emergency department. The most prevalent psychiatric diagnoses were somatoform (24.5%), mood (18.5%), schizophrenia (11%) and anxiety (9.5%) disorders. Also, we found lower hospitalization rate (35.5%), most patients were alert (65.5%), and female (51.5%) patients were more common than males (48.5%) to present in psychiatric emergency. Hospitalized patients were found to be more dangerous, has less social support with little cooperativeness than Nonhospitalized ones.*

Conclusion: *- Psychiatric emergency constitutes a significant proportion of all medical emergencies, and it is more often in low socio-economic classes. Psychiatric education, proper social support, family education and early detection of psychiatric disorders will minimize the hazards of psychiatric illness.*

الملخص العربى: دراسة نسبة حالات الطوارىء النفسية فى قسم الطوارىء بمستشفى جامعة الزقازيق

يمثل عدد المترددين لاسباب نفسية على اقسام الطوارىء نسبة لا يستهان بها . وقد حاولنا فى هذه الدراسة قياس نسبة حالات الطوارىء النفسية، ومعرفة مدى وعيهم وحاجتهم للادخال للقسم الداخلى للعلاج. اجرى هذا البحث على 11699 متردد على قسم الطوارىء، ووجد ان مائتين (1.71%) منهم قدموا لاسباب نفسية طارئة، وقد اجرينا لهم فحص طبى ومعملى شامل بالاضافة للتقييم النفسى الذى تضمن : دراسة اجتماعية ديموجرافية، فحص نفسى كامل باستخدام البروتوكول الخاص بقسم الطب النفسى بجامعة الزقازيق، كما اجرينا القياسات النفسية التالية عليهم

1- اختبار الحالة العقلية المصغر

2- المقياس النفسى المختصر المندرج

3- المقياس المندرج للازمات الطارئة

وقد وجدت الدراسة ان 1.71% من المترددين كانوا لاسباب نفسية طارئة، اغلبهم من السيدات وقاطنى المدن وينتمى معظمهم لطبقات اجتماعية منخفضة، وقد تم ادخال 35.5% منهم للقسم الداخلى للعلاج. وقد وجدنا ان الاضطراب الخولى ثم الاضطرابات الوجدانية ثم الفصام الذهانى ثم القلق النفسى هى الاكثر شيوعا لدى هؤلاء المرضى. هذا وقد خلصنا الى انه يجب تحسين الظروف المعيشية مع زيادة النوعية بالامراض النفسية عند الاسرة والمجتمع بالاضافة الى تدريب العاملين فى الحقل الطبى من اطباء وفريض على التعامل مع طوارىء الامراض النفسية لتقليل وصمة المرض النفسى لدى مجتمعاتنا .

■ Introduction

Psychiatric emergency has been extensively studied along years with different Trans-cultural presentations. Psychiatric patients make up 3-11% of the total general hospital emergency visits *(Gerson & Bassuk, 1983).* However, *Oyewmi et al., (1992)* found that visits for psychiatric emergency services during their study in Canadian City represented 2.32% of the total number of visits to emergency facilities. *Gerard, (1998)* classified psychiatric emergency into: Major psychiatric emergencies: Represent a threat to life e.g.: suicidal, overdose, homicidal, agitated and sever adverse drug reaction, and Minor psychiatric emergencies:

severely distressing but not a threat to life e.g. grief, panic attacks, and rape. During the past 25 years there has been a shift away from institutionalizing mentally ill patients towards reliance on community services. Psychiatric emergencies facilities are often the only source of treatment and support for many of the chronically disabled people living in the community *(Perlmutter et al., 1986). Witkin et al.*, (1989) reported that, during the past 15 years there have been a rapid increase in the growth and utilization of psychiatric emergencies facilities in the United States. The psychiatric emergency service is now the main entry point into the network of mental health service for people in need of help.

The accessibility of emergency room, the belief emergency treatment is none stigmatizing and a lack of community to long term treatment, make psychiatric emergency facilities desirable in communities to manage the emotional and behavioral problems of its members (*Oyewumi et al.,* 1992).

- **Aim of work**

The objective of this study was to assess the prevalence and evaluate the socio-demographic aspects of psychiatric emergency cases attending emergency department at Zagazig University Hospital (ZUH) in addition to studying some clinical contributions regarding severity of illness, cognitive state, and rate of hospitalization among those patients.

- **Subjects and methods**

200 consecutive referral patients (97 males, 103 females, aged from 9-78 with mean age 29±12.5) who attended the emergency department at ZUH with Psychiatric emergency, were recruited for participation in this cohort study. Patients were assessed by proper medical examination and routine laboratory tests. Psychiatric evaluation done to the patients by two psychiatrists using:-

1- Semi-Structured Clinical Interview (SSCI) derived from Psychiatric department protocol of ZUH. It covers, mainly, socio-demographic data, personal history, past history, family history, and diagnosis according to DSM-IV diagnostic criteria.

2- Mini-Mental State Examination (MMSE) designed by Folestien and colleagues from Baltimore (Folestien et al 1975) as the most widely used and studied screening measure of cognitive impairment. It has the advantages of brevity, ease of administration, and high inter-rater reliability. It can be easily incorporated into routine clinical practice. It is not useful for the detection of focal cognitive deficits and insensitive to frontal lobe disorders. A score of less than 24 was initially suggested for distinguishing between impaired and normal subjects with a reasonably high degree of specificity and sensitivity. It has been clearly established that the MMSE is very vulnerable to the effects of age, education, and socio-economic status. It takes on average 5-10 minutes to be completed.

3- Brief Psychiatric Rating Scale (BPRS) (Over &Gorham 1962) has been widely recognized and used both for the routine follow up and research assessment of psychiatric patients.

4- Crisis Triage Rating Scale (Bengeldrof et al 1984) to expedite the rapid screening of emergency psychiatric patients who require hospital admission from those who are suitable for out patient crisis intervention treatment. It has three dimensions: - Dangerousness, Support system, and Motivation and Ability to cooperate.

Data management and statistical methods:

The data has been coded and entered on an IBM compatible personal computer using the statistical package SPSS ver. 9.0.

The data was summarized using the mean and standard deviation for continuous type, while percent was used for the qualitative type. The differences between groups were tested using the student's t-test and ANOVA for continuous data. The chi-square test was used for qualitative data. The correlation between two continuous groups was assessed using the Pearson's correlation test. The level of significance for all above mentioned tests was at $P<0.05$ (Saunders & Trapp, 1994).

■ Results

There were, along 3 months period, 11699 attendants to the emergency department, 200 (1.71%) of them (97 males and 103 females, with mean age 29±12.5, age range 9-78 with peak age 17-34) presented with psychiatric emergencies with the following diagnoses in chronological order:- Somatoform disorder 49 (24.5%), Mood disorders 37 (18.5%), including major depression 21 (10.5%) and bipolar disorder 16 (8%), Schizophrenia 22 (11%), Anxiety disorders 19 (9.5%) (mainly panic attacks & PTSD), Substance abuse 16 (8%), Mental disorder due to general medical condition 14 (7%), Adjustment disorders 12 (6%), Suicidal 13 (6.5%), Drug induced movement disorder 6 (3%), Delirium 4 (2%), Acute Grief Reaction 3 (1%), Personality disorder 2 (1.5%), Dissociative disorder 2 (1%), Psychosexual 1 (including Gender identify disorder) (0.5%).

Figure (1)

Prevalence of psychiatric emergencies according to DSMIV classification

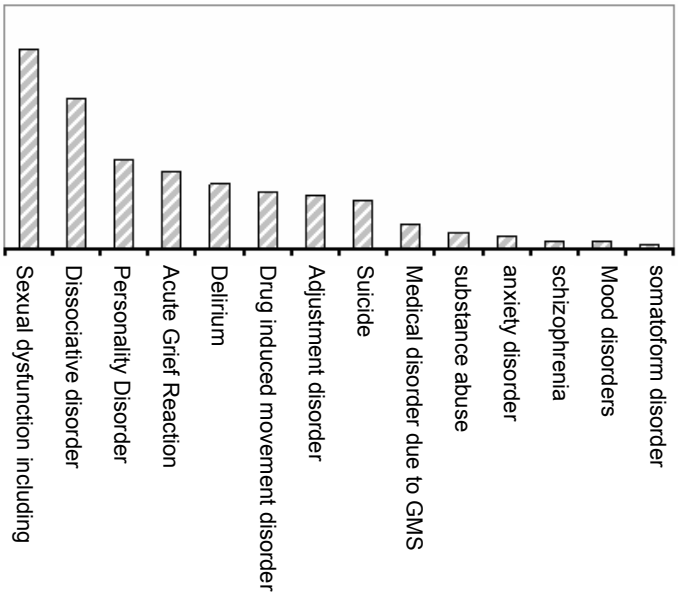


Table (1)
Age Distribution

Age	Number	Percentage
< 10	6	3%
10 – 20	39	19%
20 – 30	71	35.5%
30 – 40	46	23%
40 – 50	18	9%
50 – 60	10	5%
> 60	10	5%

Table (2)
Sex, Marital status, Residency, Education, and Occupation of psychiatric emergency patients

Item		Number	Percentage
Sex	Male	97	48.5%
	Female	103	51.5%
Marital status	Married	80	40%
	Single	94	47%
	Divorced	15	7.5%
	Widowed	11	5.5%
Residency	Rural	83	41.5%
	Urban	117	58.5%
Education	< 6 years	71	35.5%
	6-12 years	90	45%
	> 12 years	39	19.5%
Occupation	Not working, housewife	63	31.5%
	Students	48	24%
	Semiskilled	49	24.5%
	Skilled	40	20%

Figure (2):
Precipitating factors in psychiatric emergencies shows that Familial & social problems form the two most common precipitating factors of psychiatric emergencies:- they represents 23% & 21% respectively.

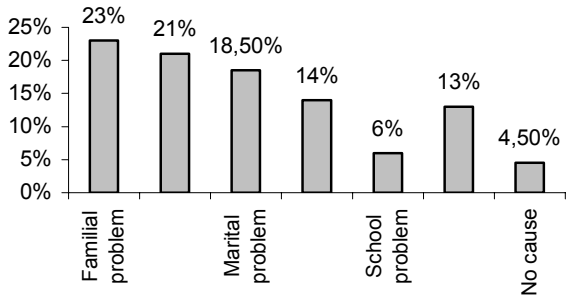


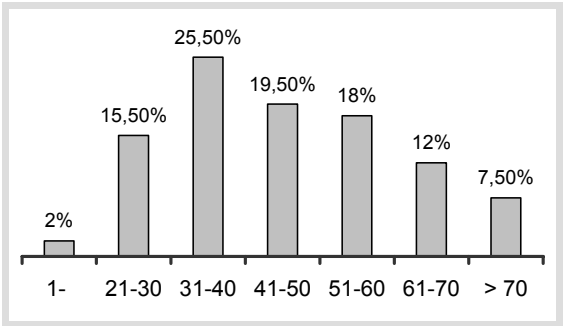
Table (3)
Results of MMSE in hospitalized & non hospitalized patients shows that alert 65.5%, drowsy 26.5%, stupor 6.5%, to coma 1.5%.

Item	Nonhospitalized		Hospitalized		Total	
Result of MMSE	N = 129	%	N=71	%	200	%
Alert	90	69.7	41	57.7	131	65.5
Drowsy	25	19.3	28	39.4	53	26.5
Stupor	9	7.5	2	4.9	11	6.5
Coma	3	2.5	0	0	3	1.5

Table (4):
CTRS in hospitalized & non hospitalized patients

CTRS	Total		Hospitalized		Non hospitalized		T	P
	N	%	N	%	N	%		
3	4	2	4	5.6	0	0	16.58	≤0.001 high sign.
4	9	4.5	8	11.3	1	0.7		
5	11	5.5	8	11.3	3	2.3		
6	21	10.5	16	22.2	5	3.9		
7	29	14.5	16	22.2	13	10		
8	18	9	8	11.3	10	7.7		
9	16	8	4	5.6	14	10.8		
10	11	5.5	2	2.8	9	7		
11	32	16	2	2.8	30	23.3		
12	16	8	2	2.8	14	10.8		
13	18	9	1	1.4	17	13.2		
14	14	7	0	0	14	10.8		
15	1	0.5	0	0	1	0.7		
Mean	8.5		7.18		11.8			
S.D.	2.4		2.59		2.9			

Figure (3)
Results of BPRS shows that most patients (90.5 %) scored from 21 – 70 on the BPRS.



Discussion

Our major findings in this study were the low prevalence rate of psychiatric emergency in comparison to other emergencies, the chronological order of psychiatric disorders as a causative factor in attending patients in emergency, the low rate of hospitalization to psychiatric ward, higher percentage in females than in males, singles and married patients were more prone to come in emergency, and most of patients were alert.

One of the major findings in this study was the low prevalence rate of psychiatric emergency (1.71 %) cases which is very close to Adityanjee et al., 1988 (2%) reports in an Indian study despite it is, at the same time, so far from German findings (9.2%) reported by Pajnok et al. 2002. We think that the relatively low prevalence rate in our study might be explained by the role of mental stigma, emergency doctors trials not to stigmatize their patients, the limited physician-patient contact time, medical co morbidity, patient resistance for mental illness, and the inadequate psychiatric training for emergency doctors all might contribute to the lower reporting of psychiatric emergency in our community. We found that the most common psychiatric disorders are in a chronological manner: Somatoform disorder (24.5%) followed by Mood disorder (18.5%)

then schizophrenia (11%), anxiety disorder (9.5%), and lastly substance abuse (8%) which reported as the lowest psychiatric disorder in emergency department. Contrary to our results, Oyewmi et al., 1992 Moecke et al., 2001 and Kadels et al., 2003 found that substance and alcohol abuse disorders were the most common prevalent causes (29%, 70%, and 32.8% respectively) of psychiatric emergencies. These differences between our results and others` might be attributed to the cultural, legal and religious factors in lowering the rate of substance abuse in our population.

However, in our study, 35.5% only of cases necessitated admission at psychiatric ward while 64.5% were suitable for outpatient management. These figures are in consistence with Taylor et al. 1996 (31% hospitalized vs. 69% outpatient), Prokudin 1985 (33% vs. 67%), and Schyder et al. 1999(34.1% vs. 65.9%) findings despite the different causes of admission between our studies and theirs`. Our major causes of admission were found to be schizophrenia followed by bipolar disorder manic type and then lastly major depression. However, James et al., (1991) found 61% of psychiatric cases need admission because of the violence. These differences in the causes of admission between us and others might be attributed to the overcrowding of patients in hospitals in Prokudin 1985 study and the high social support and familial ties in our culture.

Interestingly, In our sample, female patients (51.5%) found to be more common than males (48.5%) to seek emergency psychiatric service in consistence with Gabbard et al., 1994 and contradictory to an Egyptian study by Okasha 1966 who reported that males are more common (57.4%) than females (42.4%). This difference may be attributed to the fact that many females in our society are exposed to many stressors, more easily to express themselves in psychiatric terms, and the prominent somatoform disorders in our sample.

Moreover, we found 55.5% of emergency patients came from urban areas which is very close to the findings of (Tsuang et al., 1992) & (Baxter et al., 1988) While Pajonk et al. 2002 and Baretels et al. 2002 found no significant difference between rural and urban residency in emergent psychiatric patients. This may indicate the hazards of overcrowding of urban areas with subsequent social deprivation and weak family ties. Also, the stresses associated with life style in urban areas may play a role.

Interestingly, 65.5% of our patients were alert followed by drowsy, stupor and coma, (26.5%, 6.5%, 1.5% respectively) in accordance with Henneman et al., (1994) BPRS in our hospitalized patients was 64.8±7.99, While in non hospitalized patients it was 47.9. The cut off score of BPRS was 54 (i.e. more than or equal 54 indicates hospitalization and less than 54 indicates that oupatient treatment is sufficient. Our result found to be very close to that of Paulette et al. 1989 While inconsistent with Apsler et al. 1983 who found that the mean score of BPRS in hospitalized and non hospitalized patients were 54, 40 respectively. This controversy might be due to the higher severity of illness among our sample patients.

The mean score of CTRS in our hospitalized patients was 7.18±2.9 while in non hospitalized patients, it was 11.8±2.3. There was negative correlation between CTRS score and hospitalization. Those who were admitted were more dangerous, had less social support with little cooperativeness. It is supported with results of Bengeldrof ET al.1993 who reported the same results by his opinion that patients with 3- 8 CTRS requires hospitalization.

■ Conclusion

Psychiatric emergency constitutes a significant proportion of all medical emergencies, and it is more often in low socio-economic classes. Psychiatric education, proper social support, family education and early detection of psychiatric disorders will minimize the hazards of psychiatric illness. Proper psychiatric training is inevitable for undergraduate medical students and emergency doctors to improve their clinical skills to cope better with the increasing psychiatric emergency cases.

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إضحـــى مبـــارك 1426

تتقدم أسرة شبكة العلوم النفسية العربية إلى الزملاء الأطباء و أساتذة علم النفس و كافة المسلمين بأحر التهاني بمناسبة عيد الأضحى المبارك سائلين الله العلي القدير أن يلهمنا الرشاد وأن ينير بصيرتنا ويهدي عقولنا إلى ما فيه خير المسلمين والإنسانية جمعاء.

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البقـــاء للـــه وحـــده

الأستاذ الدكتور أسامـــة محمـــد الراضـــي في ذمة الله

"يا أيتها النفس المطمئنة ارجعي إلى ربك راضية مرضية فادخلي في عبادي وادخلي جنتي"

ببالغ الحزن والأسى تنعى شبكة العلوم النفسية العربية إلى أساتذة علم النفس والطب النفسي وفاة المغفور له الأستاذ الدكتور:أسامة محمـد الراضـي (أستاذ الطب النفـسي – الطائف، السعودية -رئيس الجمعيـة العالمية الإسلاميـة للطب النفسـي (سابقاً) - مدير خدمـات الطب النفسـي في المملكة العربية السعودية)

بهذه المناسبة الأليمة ، نتقدم إلى أسرة الفقيد و إلى جميع الأطباء النفسانيين العرب بأحر التعازي سائلين الله العلي القدير أن يتغمده برحمته الواسعة و يسكنه فراديس جنانه و يرفع درجاته. وإنا لله وإنا إليه راجعون.

شبكة العلوم النفسية العربية