# Psychiatric Emergency Service Utilization in University Malaya Medical Centre (UMMC)

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**Background:** Emergency room is the interface between community and health care institution. Psychiatric emergencies are common occurrence in A & E department and psychiatric services are often sought.
**Aim:** (i) To observe the sociodemographic profile of patients coming to A & E department with psychological problem. (ii).To identify the difference in presentation during 'in' hours and out-of hours. (iii).To identify the factors predicting admission.
**Method:** This was a descriptive study of every consecutive patient presented to A & E department with psychological problem during a period of 2 months. The time that the patients were seen by trainee psychiatrists were divided into 2 categories :(i).'In' hours were from 8 am to 5 pm and (ii), out-of hours were after 5pm and before 8am. Relevant information were obtained from the daily 'worksheet' of medical officer on call and emergency registration forms from A & E department. The data were analysed using SPSS program.
**Results:** There was no significant difference in sociodemographic data of patients that came during 'in' and out-of hours. Significant number of new cases and deliberate self-harm were seen during out-of hours. Patients with past history of psychiatric admission and violent patients were commonly seen during 'in' hours. Significant number of patients who were seen during 'in' hours had been diagnosed to have either depression or schizophrenia, while adjustment disorder was commonly seen during out-of hours. Greater numbers of patients were sent home during 'in' hours compared to those who needed admission during out-of hours. Factors predicting admission were new cases and those seen during out-of hours.
**Conclusion:** Patients seen in A & E department during out-of of hours should be carefully evaluated for psychiatric emergencies and were most likely to get admitted. New cases mainly consisted of suicide attempters and should be given adequate attention.

**Keywords:** Psychiatric emergencies, 'in-hours', 'out-of hours'

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## Introduction

A psychiatric emergency is any disturbances in thoughts, feelings or actions for which immediate therapeutic intervention is necessary (1). Clinicians in all departments are likely to be faced with psychiatric emergencies from time to time. Especially in Accident and Emergency (A & E) department, psychiatric emergencies are common occurrences, so it is important that A & E doctors have ready access to psychiatric services. Liaison mental health services are now an integral part of many A & E departments (2). In University Malaya Medical Centre (UMMC) over the past 2 years psychiatric admission constituted about 2% of all hospital admission while patients seen in A & E department for psychological problem constituted about 1% of all casualty attendees. This reflects a lesser figure, when compared to the report of casualty records at London Hospital during a period of 6 months, found to have primarily a psychiatric disorder in 5% of all attendees to A & E department (3). The extent of the emergency psychiatric service utilization has not been studied in our local service. It is important to understand the type of patients presenting with psychological problems presenting to A & E department, especially during office hours and during out of office hours. Better understanding

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of the problems can provide better care and management. Emergency room is the interface between community and health care institution. Often on-call trainee psychiatrist or consultant psychiatrist are called to assess patients, acutely presenting with psychiatric illness in general hospital. The choice of decision between outpatient and inpatient treatment poses a major importance in emergency psychiatry. Even though decision making procedures are usually very complex, they are often made in a hasty manner, despite a number of uncertainties (4). Cases that present to A & E department include violent patients, psychoses, depression, attempted suicide, alcohol and other substance related problem and altered mental states (1). Subjects presenting to A & E during office hours were more likely to be depressed, referred to psychiatrist and get admitted to psychiatric ward, while those presenting after office hours were more likely to have deliberate self-harm and likely to disappear before being assessed (5). Poor service, less staff and lack of a crisis intervention team were cited as greatest weakness in emergency service during out of office hours (6). This can pose serious consequences to subjects presenting with deliberate self-harm after a crisis and psychiatrically ill subjects presenting to A & E after office hours. When we understand the nature of service needed, then we can offer comprehensive psychiatric services in A & E department accordingly (7).

## Methods

This was a descriptive study done to observe patients presenting to emergency department with psychological problems. There is 24 hours psychiatric emergency service available in University Malaya Medical Centre (UMMC). One trainee psychiatrist will be available in hospital at any time. Apart from this there would be one lecturer and one consultant on call from the Department of Psychological Medicine. During the study period the medical officer on call was expected to fill up the daily duty worksheet. The information included in the daily duty worksheet were sociodemographic data of patients, whether they came alone or accompanied, either new case or old case, time seen, main problems, diagnosis and disposition of patients. The information was also obtained from emergency registration forms from A & E department. The time that the patients were seen by the medical officer was divided into 'in' hours and out-of hours. The 'in' hours constituted from 8am to 5pm while the out-of hours constituted after 5pm and before 8am. The study was conducted over a period of two months. The sample population included every consecutive patient seen by the Psychiatric medical officer on call in the A & E department which consisted of 293 patients. The data collected were analysed using SPSS program. Chi square test was used to detect the significance of the results and 'P' value $< 0.05$ was taken as significant. Logistic regression was used to detect the factors predicting admission.

## Results

### Socio-demographic Factors

There were 56% female patients presented with psychiatric problem to the A&E Department. The age range was from 14 years old to 80 years old. Majority of them 77% (n=224) were between 20 and 50 years of age. The mean (+/- SD) age was 35.0 +/ - 13.6 years. Of all the races 44% (n=130) were Chinese, 33% (n=96) were Indians, 22% (n=64) were Malays and 1% (n=3) constituted of two Indonesians and one Eurasian. Half of them were single 50% (n=147), while 45% (n=131) were married and 5% (n=15) were divorced. It was noted that 38% (n=110) were working and 37% (n=108) were jobless, while housewives and students constituted 17% (n=50) and 8% (n=25) respectively. Most of them 88% (n=257) were accompanied either by family members or by friends. Only 10% (n=28) of them came alone and the rest 2% (n=8) were brought by police. There were no significant difference of the sociodemographic data like gender, race, marital status, and employment of patients presenting to A & E department during 'in' hours and 'out-of' hours.

### Clinical Characteristics

About equal number of old cases 55% (n=162) and new cases 45% (n=131) were seen during that period of two months. Similarly about half of patients were seen during 'in' hours 49% (n=145) and 51% (n=148) were seen during 'out-of' hours. About 57% (n=167) had no past history of psychiatric admission, while 43% (n=126) had past history of admission to psychiatric ward.

The main reason for coming to A&E department was for being violent, restless, and disturbed behaviour (45%). The second common reason was attempted suicide (24%), 14% of them were depressed

and 10% were seen for substance abuse and related problems like alcohol intoxication, abuse, heroin dependant with or without withdrawal symptoms. A small number of them (7%) were consulted for medicine related problems like running short of medicines, defaulted follow up and side effects of medicine.

The diagnosis that was made at the time the patient seen in A & E department varied. The most common diagnosis was schizophrenia (32%), next was adjustment disorder (25%), while 17% received the diagnosis of bipolar disorder and 13% were diagnosed to have depression. A small number of them (9%) were diagnosed as either heroin dependent syndrome or alcohol intoxication and related disorders. Only 4% had no psychiatric diagnosis.

Majority of them were admitted either to psychiatric ward (37%) or non-psychiatric ward (24%), and a quarter (24%) were sent back home after being seen by the psychiatric medical officer at A & E department. A significant number of patients (p=0.000) who presented with aggression and psychotic behaviour were admitted to psychiatric ward compared to adjustment disorder who were admitted to non-psychiatric ward. Other clinical characteristics of patients with psychological problems coming to A & E during 'in' hours and 'out-of' hours are given in the *(table 1)*. The factors predicting admission were patients seen during 'out-of' hours (odd ratio 2.4) and new cases (odd ratio 5.0).

A significant number of new cases were seen during 'out of' hours compared to old cases coming during 'in' hours (P=0.008). This was mainly due to patients presenting with deliberate self-harm during 'out-of' hours that had their first contact to psychiatric service for the same reason.

Table 1: Clinical Characteristics of patients coming 'in' hours and 'out-of' hours (n=293).

| Variable | In hours | | Out hours | | P value |
|---|---|---|---|---|---|
| | n=145 | % | n=148 | % | |
| **Cases** | | | | | |
| New | 54 | 18 | 77 | 26 | 0.008 |
| Old | 91 | 32 | 71 | 24 | |
| **Past Psychiatric admission** | | | | | |
| Yes | 70 | 24 | 56 | 19 | |
| No | 75 | 26 | 92 | 31 | 0.04 |
| **Problems** | | | | | |
| Feeling low | 22 | 8 | 20 | 6 | NS |
| Aggression | 74 | 26 | 59 | 20 | 0.03 |
| Self-harm | 21 | 7 | 49 | 17 | 0.006 |
| Medicine related | 11 | 4 | 8 | 3 | NS |
| Subs-abuse | 17 | 5 | 12 | 4 | NS |
| **Diagnosis** | | | | | |
| Schizophrenia | 57 | 19 | 36 | 13 | 0.004 |
| Depression | 25 | 9 | 13 | 4 | 0.02 |
| Bipolar d/o | 22 | 7 | 27 | 9 | NS |
| Adjustment d/o | 23 | 8 | 51 | 18 | 0.000 |
| Substance abuse | 13 | 4 | 13 | 4 | NS |
| Nil. psychiatric diagnosis | 5 | 2 | 8 | 3 | NS |
| **Disposal** | | | | | |
| Psychiatric admission | 49 | 17 | 59 | 20 | NS |
| Non-psychiatric admission | 22 | 7 | 48 | 16 | 0.000 |
| Home | 74 | 26 | 41 | 14 | 0.000 |

## Discussion

Psychiatric emergency room is an important entry point for psychiatric care and management. Poor social functioning was found in patients who came by themselves or brought by police (8). The proportion of self referral was higher in various other studies such as 51%, 19% and 34% (8), (9), (10). However findings in this study showed that 88% were accompanied by family members, relatives or friends, while only 10% came alone. This reflected a good family tie and social support in our local settings. This could provide the clinicians greater accessibility of family members to get involved in the treatment plan and management. The proportion of patients accompanied by police was very small 2%. This could be due to the fact that the police were aware that our hospital is a non-gazetted hospital that caters for mentally ill patients. This would not permit the clinicians to admit psychiatric patients against their wish, and more over Hospital Kuala Lumpur is located nearby and is a gazetted hospital.

A significant number of new cases were seen during 'out-of' hours (P=0.018). The main bulk of new cases were deliberate self-harm who had their first psychiatric contact in our A & E department. About a quarter of this study population was suicide attempters. A survey done in Switzerland also showed a similar picture of 27% and recommended not to automatically admit suicide attempters particularly of low risk patients (11). The decision to admit suicide attempters is complex. Many Psychiatrists believe that any patients with suicide attempt, regardless of the lethality should be admitted (1). Deliberate self-harm is one of the most frequent cause of compulsory hospitalization in emergency psychiatry (12). UMMC has a consistent policy of admitting all subjects presenting with deliberate self-harm. There is no crises intervention centre in our local setting; hence hospital had to offer similar service to help patients with need.

The most common method of deliberate self-harm was overdose (71%) which is usual presentation, not only here but also in various other places (4), (13). About a quarter took poison while the rest attempted physical methods like cutting the wrist, slitting the throat and stabbing the abdomen. During the study period of two months; two suicide attempters died. Both of them were Indian males and both took paraquat poisoning. Both of them took the poison under impulse following an argument without knowing the lethal nature of the poison. Poisons like paraquat is freely available here and there should be some strict enforcement on the easy accessibility of the poison.

It was observed in this study, that the most common problem to seek emergency psychiatric service was aggression and psychotic behavior, followed by attempted suicide and depression. A recent research indicated that current diagnosis of a psychotic disorder, and previous hospitalizations were the most powerful predictors of hospitalization (14). One study in Massachusetts found that problems like depression and attempted suicide were associated with private hospitalization while aggression and psychotic behavior were associated with public hospitalization (15). The current study showed a mixture of both as we do not have private hospitals that cater for psychiatric patients in our locality.

The present survey demonstrated that 'new cases' and patients seen 'out-of' office hours were the factors predicting admission. Among those admitted, significant number of patients with aggression and psychotic behaviour were admitted to psychiatric ward and patients with deliberate self-harm were admitted to non-psychiatric ward. It is obvious that the severity of attempted suicides and fear of relatives were great that they could not wait for the following working day instead; they were brought in during 'out-of' hours to A & E department. The attending clinicians must be cautious to evaluate psychiatric emergencies in patients coming after office hours. Majority of the new cases were deliberate self-harm and were admitted. Deliberate self-harm is one of the strongest predictions for decision to hospitalize (12). For the on call doctors the psychiatric emergency room can be stressful work place in the mist of various urgent demands to be met in psychiatric wards and at times in non-psychiatric wards too. It has been shown that work stress has negative attitudes towards suicide attempters under such conditions (16). The assessment of the risk of suicide is known to be a difficult task involving many uncertainties (17). It is important to identify suicide risk; as substantial number of suicide victims had contact with A & E department, at some point in the last year of their lives where suboptimal service was offered (18). It is safe to admit suicidal patients under such circumstances to avoid any adversities later, as inpatient treatment care could provide enough period of time to evaluate and intervene for optimal patient care. This could incur increased manpower and cost. It is timely that alternate psychiatric services should be established to cope with the increasing demands.

At A & E department mental health issues can be tackled through the use of community psychiatric nurses, self harm clinics, crisis counseling and liaison nursing, but such services are not available in our local setting. Mental health nurses can be trained to work as an integral part of the A & E department team. Having mental health nurses working directly in the A & E department will improve staff's knowledge and understanding of both problem and services (19). Alternatively, toll free call 1800-Mental Health Information and Support Service providing 24-hour single point of contact for people experiencing a mental health problem can be introduced. This service had demonstrated 43% reduction in the utilization of after-hours services (20). However, integrated psychiatric services are poorly developed and ill-equipped to meet the needs of our patients having mental health problem. We should look forward to develop such services in our country.

## Limitations

Certain limitations were encountered in this study. The diagnoses of the patients seen in A & E department were made by the attending psychiatric medical officer on call at that moment. They were based on clinical impression and by not using any specific psychiatric diagnostic instrument. This study did not include the emergency cases that were seen in psychiatric walk-in clinic that operate every working day from 8.30am to 11.30am.

## Conclusion

Psychiatric emergency room is a place where the clinician needs to take quick and accurate decision whether to admit patients or to send them home. Each and every patient needs to be assessed carefully especially those coming during 'out-of' hours as they are mostly likely to be admitted. New cases mainly suicide attempters should be given adequate attention as they need admission. Clinicians have to be on the look out for psychiatric emergencies especially after office hours.

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