SHORT REPORT

Mental health service requirements in a Japanese medical centre emergency department

D Nishi, Y Matsuoka, E Kawase, S Nakajima, Y Kim

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Background: A significant number of emergency department (ED) patients in Japan may be affected by mental health problems leading to attempted suicide. This retrospective descriptive study aimed to explore mental health service needs in a Japanese medical centre ED.

Methods: Data on all inpatients were collected within 24 h of admission to the ED of a medical centre in Tokyo from 1st February 2004 to the 31st of January 2005.

Results: A total of 14.4% (95% CI 13.0 to 16.0) of ED visits required psychiatric services and 23.4% (95% CI 21.7 to 25.3) of inpatients had experienced psychologically traumatic events.

Conclusions: Approximately 38% (95% CI 35.8 to 39.9) of patients presenting to an ED could be affected by mental health problems.

It has been estimated that a significant proportion of emergency department (ED) patients in Japan may be affected by mental health problems leading to attempted suicide.¹ In addition, disease or injury may result in some patients becoming susceptible to psychological trauma or depression.^{2–5} Although the need for emergency psychiatric services for people who have attempted suicide has been identified in Japan,¹ the requirements of patients with a broad range of mental problems in EDs have been underestimated or have not been adequately addressed. This coincides with the limited capacity of psychiatric services in emergency hospitals in Japan. In 2003, only 80 (22.1%) of 362 emergency hospitals in Tokyo had a psychiatric section and only 32 hospitals (8.8%) had psychiatric beds.⁶

The purpose of this study was to explore the scale of mental health problems experienced by patients admitted to Japanese EDs and thus attract the attention of policy makers and administrators.

METHODS

This retrospective study was carried out in the National Hospital Organization Disaster Medical Center located in the suburbs of Tokyo and to which about 150 000 patients are admitted each year. We collected information from the medical record database on all inpatients within 24 h of admission to the ED from the 1st February 2004 to the 31st January 2005. The ED includes an intensive care unit, a coronary care unit, and a burn unit. This study was considered to be exempt from the requirement for institutional review board (IRB) approval, since the data were collected for clinical, rather than research, purposes and the database is recorded in such a manner that subjects cannot be identified. According to Hazlett *et al*,⁷ psychiatric-related ED visits (PREDVs) were defined as visits by patients who were judged to need psychiatric services on admission to the ED either because of suicide attempts or any previous

psychiatric morbidity. Survivors of psychologically traumatic events included inpatients who had experienced traffic accidents, burn injuries (excluding self-inflicted burns), other unintentional accidents, interpersonal violence, and acute myocardial infarction (AMI) based on DSM-IV-TR,⁸ as these conditions are considered major causes of post-traumatic stress disorder.^{2–5} Visits by patients who had psychiatric morbidity and had experienced psychologically traumatic events were classified as PREDVs.

RESULTS

Of the 2572 inpatients admitted during this period, 1623 (63.1%) were male and 949 (36.9%) were female. Ages ranged from 0 to 99 years, and the mean age was 56.9 years (SD 22.1). Within 24 h after admission, 396 (15.4%) patients had died and 28 (1.1%) had entered a vegetative state. Of the 2148 remaining patients, 310 (14.4%) were classified as PREDVs, and 525 (24.4%) were classified as survivors of psychologically traumatic events (table 1).

Of the 310 PREDVs, 247 had attempted suicide and 63 had undergone or were undergoing psychiatric treatment.

Of the 2148 inpatients, 503 had experienced psychologically traumatic events. A total of 211 patients had been involved in traffic accidents, 27 had burn injuries, 13 were victims of crime, and 154 had suffered an AMI.

DISCUSSION

Our results indicate that the percentage of PREDVs is much higher in Japan (14.4%) than in the United States (reported to be 5.4%).⁷ Also, approximately one quarter of patients had experienced psychologically traumatic events. These traumatic events may be associated with mental disorders as shown by previous studies.^{2–5} The clinical course of these patients in Japan deserves further study.

In addition, about one fifth of the 396 deaths may have been especially traumatic for the bereaved families. These deaths included 42 by suicide, 24 in traffic accidents, 16 by other unintentional accidents including burn injuries, and one as a result of crime. Follow-up care may be very important for bereaved relatives⁹ to help them deal with grief¹⁰ and decrease the risk of suicide.

This study has several limitations as it was conducted in a single institution and did not cover mental disorders after admission such as delirium and depression.

CONCLUSION

PREDVs accounted for 14.4% (95% CI 13.0 to 16.0) inpatient admissions to the ED and 23.4% of inpatients (95% CI 21.7 to 25.3) had experienced psychologically traumatic events. These results indicate that a sizable proportion of patients in EDs could have critical mental health problems. More

Abbreviations: AMI, acute myocardial infarction; ED, emergency department; PREDV, psychiatric-related emergency department visit

Table 1 Survivors (n = 2148) thought to require psychiatric health services in the emergency room

Classification	n	%	95% CI
PREDVs	310	14.3	13.0 to 16.0
Suicide attempters	247	11.5	10.2 to 12.9
Those with mental disorders	63	2.9	2.3 to 3.7
Survivors of psychologically traumatic events	503	23.4	21.7 to 25.3
Traffic accidents	211	9.8	8.6 to 11.2
Burn injuries	27	1.3	0.9 to 1.8
Interpersonal violence	13	0.6	0.4 to 1.0
Other unintentional accidents	98	4.6	3.8 to 5.5
AMI	154	7.2	6.1 to 8.4

emphasis should be placed on mental health services in Japanese EDs.

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Authors' affiliations

D Nishi, The Trauma and Critical Care Center, National Hospital Organization Disaster Medical Center, Tokyo, Japan

Y Matsuoka, S Nakajima, Y Kim, Division of Adult Mental Health, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan

E Kawase, Health Service Center, University of Tokyo, Tokyo, Japan

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Correspondence to: Dr Yutaka Matsuoka, Division of Adult Mental Health, National Institute of Mental Health, National Center of Neurology and Psychiatry, Ogawahigashicho 4-1-1, Kodaira, Tokyo, 187-8502, Japan; matsuoka@ncnp-k.go.jp

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