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Defining objective clinical criteria for Emergency Department Mental Health Triage across the lifespan

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Background

- 3-5% of ED presentations — mental health
- The rapid triage of mental health presentations is complex, evidence suggests that assessment of urgency is poorly understood
- The Australasian Triage Scale (ATS) contains minimal mental health specific descriptors


Research aim

- The aim of this study was to investigate which clinical criteria (signs, symptoms, conditions) accurately predict urgency in Emergency Department Mental Health Triage.

- The underlying assumption of the study was that the clinical descriptors outlined in the VEDMHTT would accurately predict urgency in mental health related presentations.

Setting

Barwon Health Emergency Department

- 53,000 presentations p.a. (2009-2010)
- 3-5% Mental Health Triage (MHT) assessments
- >120 ED Nursing staff
  - ~43% regularly allocated to Triage
Design

The study used a mixed method design involving two stages:
• a. retrospective audit of the triage database
• b. prospective observations of mental health triage.

This paper reports on Stage 1 of the study

Methods

• A retrospective audit of the triage database was undertaken on 12 months of continuous data for all Emergency Department presentations in 2009 identified as having a mental health related chief complaint (n=1718).
• The main outcome measure was urgency categorization using the 5-tier Victorian Emergency Department Mental Health Triage Tool.

Methods

Predictor variables of triage urgency:
• Age, gender, mode of arrival and main presenting mental health problem (Chief Complaint)
- numerical age predictor collapsed into categorical age brackets.
- ‘main presenting problem’ variable derived clinical descriptors outlined in the VEDMHTT

Methods

Data Analysis
• Less than 5% of the sample was assigned triage categories 1 (0.6%) and 5 (4.1%), these categories were pooled with the adjacent categories (1,2= high urgency and 4,5=low urgency) for regression analysis.
• Bivariate associations between predictor variables and triage urgency analyzed using chi-square test.
• Ordinal logistic regression with a logit link was used to predict triage urgency

Methods

Results

Cross-tabulation of predictor variables by VEDMHTT urgency category
• The presenting problem (Chief Complaint) was significantly associated with triage urgency decisions ($\chi^2 (20)=263.40**, p=0.000$)
• Compared with other presenting problems, patients exhibiting violence/aggression or serious behavioural disturbance were more likely to be assigned a high urgency triage category

Results

Cross-tabulation of predictor variables by VEDMHTT urgency category
• Mode of arrival was found to be significantly associated with triage urgency ($\chi^2 (6)=142.46**, p=0.000$)
• Patients arriving via police and under the Mental Health Act more likely to be assigned a high urgency category
Results

Ordinal Regression Estimates: Predictors of Mental Health Triage Urgency

- Low urgency cases were not predicted by specific chief complaints, ie those outlined in the VEDMHTT for categories 4-5; the feature of the lower urgency cases was the absence of high risk presenting problems such as suicide risk/attempt and violence.
- Seven factors were found to be statistically significant in the model; all seven resulted in odds of higher triage urgency.

Discussion

- Significant associations found between the predictor variables suicide attempt, self-harm, suicidal ideation, violence, extreme behavioural disturbance, agitation/restlessness, and high triage urgency assignment.
- Consistent with the descriptors in ‘typical presentations’ in VEDMHTT for high urgency categories – points to validity of these descriptors
- Conclusion – defining objective clinical criteria for EDMHTT is possible and needs further investigation

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