Occult suicidality in an emergency department population

CYNTHIA A. CLAASSEN and GREGORY L. LARKIN

Summary The prevalence and severity of suicidal ideation was established in a patient sample seeking emergency treatment for non-psychiatric reasons. Using a computerised mental health screening panel, data were collected from waiting-room patients during randomised shifts over a 45-day period. Of 1590 screened patients, 185 (11.6%) acknowledged suicidal ideation and 31 (2%) reported planning to kill themselves. Almost all of those with suicidal ideation (97%) acknowledged symptoms consistent with mood, anxiety and/or substance-related disorders. Structured medical record review revealed that 25 of the 31 patients planning suicide were undetected during their index visit, and that 4 attempted suicide within 45 days of the visit. All survived.

Declaration of interest None.

Although as many as three-quarters of those who complete suicide do not seek psychiatric treatment (Appleby *et al*, 1999), 25–60% may present for treatment of medical illness within the weeks preceding death (Michel *et al*, 1997; Pirkis & Burgess, 1998). Gairin *et al* (2003) suggest that as many as 69% may also visit emergency departments for non-suicide-related reasons shortly before their death. Given the potential consequences of missed opportunities to identify those who are seriously suicidal, it is important to determine the markers of occult suicidality, if they exist. This analysis establishes the prevalence of suicidal ideation among a cohort of emergency department patients seeking treatment for non-psychiatric problems and describes the clinical course and visit outcome associated with these presentations.

METHOD

This study was designed to assess the feasibility of using a computerised, bilingual mental health screening panel, the Quick PsychoDiagnostics (QPD) panel (Shedler, 2000), to assess Axis I mood (major depressive or bipolar disorder), anxiety (generalised anxiety, panic or post-traumatic stress) and substance-related (alcohol, other substance misuse) symptoms.

A cross-sectional sample of patients (over 17 years old) in the waiting room of the emergency department of Parkland Memorial Hospital in Dallas, Texas, were assessed during randomised time blocks over a 45-day period. Parkland is an urban teaching hospital and has an average 12 000 emergency department visits per month. Only patients whose chief complaint was unrelated to mental health were recruited, and all patients gave permission during their enrolment to access medical records characterising previous treatment-seeking and index visit outcomes. The study was approved by the Institutional Review Board. Those presenting for treatment of a self-reported suicide attempt were excluded, as were patients seeking explicit treatment of suicidal ideation, psychosis, depression, anxiety or other mental health-related conditions.

The QPD panel is a commercially available computer module previously used in the primary care network of Kaiser Permanente Healthcare System (Shedler, 2000). It poses a series of screening questions, and only patients who respond positively to the preliminary questions are branched into a full assessment of psychopathology related to the associated syndrome. Primary care patients can self-administer the test in an average of 6.2 min. The panel's reliability and validity have been reported elsewhere (Shedler, 2000; Shedler *et al*, 2000).

Suicidality is measured in the QPD panel by a series of questions: 'I think a lot about death (my own, other people's, or just death in general)', 'sometimes I think I'd be better off dead', 'I think about killing myself' and 'I am planning to kill myself'. For the purposes of these analyses, patients endorsing suicidality were divided into three categories:

(a) passive ideation – patients endorsed both frequent thoughts of death and thoughts that they would 'be better off dead';

(b) active ideation – patients reported specific thoughts about self-harm;

(c) ideation with intent/planning – patients responded affirmatively to the statement 'I am planning to kill myself'.

Unfortunately, analysis of suicidal responses was performed retrospectively, months after data collection ended. Available demographic variables included age group (18–29 years, 30–44 years, 45–59 years, 60 years and over), ethnicity (White, African American, Hispanic, other) and gender. Available clinical variables included time of day of screening (00.00–06.00 h, 06.00–12.00 h, 12.00–18.00 h, 18.00–24.00 h), category of presenting complaint (cardiac, respiratory, acute injury, gastrointestinal/urinary, pain, infections, all other), patient status (new or previously treated), number of emergency department visits within the previous 24 months and number of emergency department visits specifically for psychiatric treatment within the previous 24 months. Simple descriptive analyses were used to characterise subgroups of people with suicidal ideation and to compare them with all others in the sample. Parkland Hospital medical records for the 6 months following the study and the official state death records for 2003 for all residents of Dallas County were reviewed to identify study participants readmitted for suicidal behaviour and those who had died by the end of 2003.

RESULTS

A total of 16 047 patients presented for treatment in the emergency department during the study enrolment period. Of 2122 patients approached for this study, 301 declined to participate, 5 were excluded because of their mental status, 38 ultimately admitted that the reason for their visit was primarily psychiatric and 188 failed to complete the screen. Sufficient data for analysis were therefore available on 1590 participants who completed the QPD panel.

https://doi.org/10.1192/bjp.186.4.352 Published online by Cambridge University Press

The ethnic and gender composition of the final sample (n=1590) was not statistically different from the overall emergency department population during the study enrolment period (χ^2=0.57, d.f.=2, P=0.75; χ^2=1.13, d.f.=1, P=0.29, respectively – data presented as a data supplement to the online version of this paper); however, age by group did vary significantly between the final sample and the overall emergency department population (χ^2=73.81, d.f.=1, P<0.0001). Compared with those who agreed to participate, those who refused were more likely to be over 45 years old (χ^2=96.2, d.f.=3, P<0.0001) and Hispanic (χ^2=15.12, d.f.=2, P<0.0005).

In this relatively anonymous screen, actively suicidal patients were not distinguishable by age, gender or ethnicity. Passive ideation was endorsed by 185 of 1590 patients (11.6%); 134 of 1590 (8.4%) also acknowledged they had thought about killing themselves and 31 reported that they were planning to kill themselves (31/1590; 2.0%). Twenty-three of the patients with active ideation (17%) and eight patients with suicidal intent (26%) had visited the emergency department for psychiatric reasons within the previous 24 months. On the QPD screen, fully 97% of those with passive ideation, 98% of those with active ideation and 97% of those reporting intent acknowledged underlying psychopathological symptoms consistent with one or more mood, anxiety or substance-related disorder. Depression was most common and covaried with severity of ideation (68% of those with passive ideation *v.* 74% of those planning suicide), as did panic attacks (43% *v.* 55%). Roughly a third of each group also endorsed substance misuse (36–38%). Among non-suicidal patients, depressive, substance-related and anxiety symptoms were reported at rates of 16.9% (231/1371), 10.0% (137/1371) and 14.4% (197/1371), respectively. Ten of the 31 patients planning suicide (30%) endorsed difficulties in three domains of psychopathology (mood, anxiety and substance misuse), and 27 (87%) acknowledged problems in at least two of these domains. Previous hospital records of 6 of the 31 patients planning suicide specifically mentioned past or present suicidality; however, structured review of medical records, nursing notes and physician charts suggested that the suicidal intent of the other 25 patients in this group went undetected during the index visit. Emergency physicians' records identified only 12 patients in this group as having a mental health problem of any kind, of whom only two had a positive review of systems for a non-substance-related psychiatric disorder.

As of 31 December 2003, none of the 31 patients expressing suicidal intent during the index visit was listed as deceased in state death records. However, four returned to the emergency department within 45 days of their initial discharge for treatment of a suicide attempt, two having overdosed on prescriptions given during the index visit, one after jumping off a bridge and one having lacerated her wrists. All survived.

DISCUSSION

This feasibility study has disclosed a surprising rate of occult suicidality in those attending an emergency department for non-psychiatric reasons. More than 11% of this sample acknowledged passive suicidal ideation and more than 8% admitted that they thought about killing themselves. Nearly all of those expressing suicidal ideation also reported symptoms consistent with mood, anxiety and/or substance-related disorders, and other studies corroborate these high levels of psychiatric comorbidity in suicidal patients (Johnson *et al*, 1990; Weissman, 1990; Rollman & Shear, 2003). The prevalence of current suicidal ideation with intent to attempt suicide in this sample is 2.0%, which is congruent with rates found in other settings (e.g. Crosby *et al*, 1999); yet even the seriously suicidal people in this sample were typically not identified during routine care. Compared with the general population, those attending emergency departments may be at significant risk of suicide. Given the occult and insidious nature of this problem, future work will need to consider strategies for unmasking this largely undetected threat to public health. Any prospective screening for psychotherapy in the emergency department should make provision for discovery and treatment of suicidal individuals.

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(First received 4 March 2004, final revision 9 September 2004, accepted 10 September 2004)

ACKNOWLEDGEMENTS

We would like to express our ongoing gratitude for the administrative support of Mandy Staton and Darlene Reynolds, without whom the project could not have been successfully completed. We also thank medical students Gabriella Blanco, David Farman, Daniel Moon and Luis Villareal for their contributions to data collection. Robert Rege, MD, Chairman, Department of Surgery, University of Texas Southwestern Medical Center at Dallas, is most gratefully acknowledged for financial support of this project. Finally, the administrative support of Paul Pepe, MD, MPH, is deeply appreciated.

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https://doi.org/10.1192/bjp.186.4.352 Published online by Cambridge University Press