Behavioral Health Boarding in Community Emergency Departments

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Increasingly, behavioral health patients are being cared for in emergency departments (EDs). Whether community hospitals have the resources to accommodate these patients is unknown. Our objective in this study was to begin to characterize the capabilities of community hospital EDs with regard to caring for patients with behavioral health problems. To do this, we surveyed 21 community hospitals, all of which are part of Mayo Clinic Health System, using a 21-question electronic survey followed by a telephone interview. Twenty hospitals responded. Nine of 18 EDs (50%) had dedicated rooms for behavioral health patients. Five of 18 (28%) had access to 24-hour security personnel. Psychiatric consulting services were unavailable in four of 19 sites (21%). Nurses in 16 of 18 EDs (89%) were responsible for locating inpatient psychiatric beds for patients in need. Behavioral health patients were transferred to intensive care units or medical units at eight of 20 facilities (40%) while awaiting admission. These community EDs have limited space, staff and resources to care for increasing numbers of behavioral health patients.

In Minnesota, 20% of residents live with some form of mental illness.[1] For those with acute or severe illnesses, getting needed care is a challenge. Often, the access point for care is the emergency department (ED).

Emergency department visits for behavioral health concerns have increased significantly, while the number of inpatient psychiatric beds in the state has decreased in recent years.[2-4] Between 1995 and 2005, ED visits by behavioral health patients increased by 24%.[5] Between 2005 and 2010, the number of inpatient psychiatric beds in Minnesota decreased by 56%.[6] Because of the shortage of psychiatric beds, patients with behavioral health problems are experiencing prolonged ED stays. Caring for them requires a significant amount of limited resources.[7]

Patients who must wait in the ED for a prolonged time are said to be "boarding." The American College of Emergency Physicians uses the term to describe "a patient who remains in the emergency department after the patient has been admitted to the facility but has not been transferred to an inpatient unit."[8] In the interest of patient safety and quality of care, the Joint Commission recommends that boarding times not exceed four hours.[9]

The boarding of behavioral health patients in EDs in academic medical centers has been well-documented in the literature;[4,10-12] however, little is known about boarding such patients in community hospitals. The objective of this study was to begin to characterize the state of behavioral health care in EDs in community hospitals and to assess whether these hospitals have the resources they need to adequately provide it.

Materials and Methods

The focus of this study was Mayo Clinic Health System, a single integrated health system with 21 community hospitals. These hospitals are located in three states (Minnesota, Iowa and Wisconsin); 10 of the hospitals (47.6%) are designated as Critical Access Hospitals, one is a Level II trauma center and two are Level III trauma centers. Their combined annual patient volume is approximately 320,000.

A 21-question electronic survey (SurveyMonkey) was distributed to the ED nurse managers or directors of social work at each site. These individuals were selected to participate because they are directly involved with behavioral health patients who are evaluated in the ED.

Two to three weeks after the survey was sent, the contact person at each site was interviewed by telephone. During the call, responses were reviewed and the contact person was asked his or her opinion about the most significant concerns associated with the management of behavioral health patients at their facility. If the designated

individual at a site did not respond to the electronic survey, he or she was still contacted by telephone and survey responses were elicited at that time. Each phone interview was scripted (see Appendix), and the interviews were recorded for future data extraction.

The survey contained questions about site demographics, including the number of annual ED visits, total number of ED beds, presence of designated behavioral health ED beds, ED staffing (staffed by physicians, advanced practice nurses or physician assistants, or both), and number of inpatient psychiatric beds. The survey also included questions specific to behavioral health patient visits: about the longest period of time a behavioral health patient had stayed in the ED, the farthest distance behavioral health patients were transferred, the location at which behavioral health patients awaited transfer and the most common barriers to transfer. In addition, it asked about the site's resources for providing behavioral health care, including the availability of consulting services, additional staff to coordinate bed placement, security personnel and social work staff.

This study was reviewed and granted exemption by the Mayo Clinic Institutional Review Board.

Results

Representatives from 20 of the 21 hospitals responded to the electronic survey, took part in the follow-up phone interview or both (response rate, 95%). Fifteen completed both the electronic survey and the follow-up phone interview, two completed only the survey and three completed only the follow-up phone interview. One facility was contacted by email on three occasions but did not participate.

Table 1 summarizes demographics for each hospital in the delivery network. Annual ED visits at each site ranged from 1,388 to 33,616. Seventeen sites had fewer than 20,000 patient visits annually, and 11 sites had fewer than 10,000 visits a year. Twelve of the 21 sites (57%) had the federal designation of Critical Access Hospital. Three of the hospitals (19%) had designated inpatient psychiatric beds within the facility. The longest estimated length of stay for boarding behavioral health patients ranged from five to 36 hours (mean:

TABLE 1

Health system site demographics

SITE	POPULATION OF CITY	NO. OF ED PATIENTS YEARLY	NO. OF ED BEDS	CRITICAL ACCESS HOSPITAL	ED STAFFING MODEL	NO. OF INPATIENT PSYCHIATRIC BEDS AT FACILITY	DISTANCE TO NEAREST PSYCHIATRIC HOSPITAL (MILES)
A	17,967	14,668	9	No	MDs and APPs*	0	23
B	24,834	17,604	22	No	MDs and APPs	14	0
C	4,086	2,992	2	Yes	MDs and APPs	0	34
D	10,589	10,816	3	No	MDs	0	51
E	5,048	2,728	1	Yes	MDs and APPs	0	48
F	39,528	30,472	30	No	MDs and APPs	0	28
G	7,401	7,120	4	Yes	MDs	0	36
H	25,570	NA†	12	No	MDs and APPs	0	42
I	16,472	11,616	10	No	MDs	0	47
J	2,138	1,388	2	No	APPs	0	28
K	4,607	2,824	4	Yes	MDs and APPs	0	35
L	2,513	3,200	7	Yes	MDs	0	43
M	9,477	4,212	5	Yes	APPs	0	28
N	3,425	8,240	6	Yes	MDs and APPs	0	32
O	3,560	1,992	4	Yes	APPs	0	25
P	66,623	30,304	26	No	MDs and APPs	20	0
Q	51,719	33,616	22	No	MDs	16	0
R	16,301	12,776	12	Yes	MDs and APPs	0	24
S	1,711	1,860	5	Yes	MDs and APPs	0	24
T	9,602	9,288	12	Yes	MDs	0	28
U	8,118	11,000	12	Yes	MDs	0	54

*Advanced practice provider (nurse practitioner or physician assistant); † Data not available

17.6 hours). The median distance for the farthest interhospital transfer for inpatient behavioral admission was 259 miles (range, 25 to 384 miles, interquartile range, 176 to 296 miles).

Table 2 summarizes the resources available and the approaches to behavioral health care in the ED at each site. Nine of 18 (50%) hospitals had EDs with designated behavioral health rooms—that is, they were designed for patient and staff safety. Security personnel were available 24 hours a day at five of 18 facilities (28%); three of 18 (17%) had part-time security present. Two of 18 sites (11%) used maintenance staff with training in management of violent patients as needed. Eight of 18 sites (44%) relied on local law enforcement to come to the ED if a patient became violent.

In 60% of facilities (12 of 20), behavioral health patients who had prolonged lengths of stay remained in the ED and were monitored by staff or video while awaiting inpatient admission. On-duty ED nursing staff were responsible for locating an appropriate inpatient bed in 16 of 18 facilities (89%). During business hours, eight of 18 facilities (44%) relied on a social worker to assist with locating an inpatient psychiatric bed. Psychiatric consults were not available at 21% of the sites; 32% had access to on-call psychiatrists; and 74% had access to other providers (social workers or psychiatric nurses) either solely or in addition to psychiatrists.

Interfacility transfers were provided by emergency medical services with some exceptions. Eleven of 17 facilities (65%) relied on law enforcement to transport patients if emergency medical services was unavailable or the patient was too violent to be transported by local emergency medical services.

TABLE 2

Community hospital ED behavioral health resources

RESOURCES	NO. OF FACILITIES WITH RESOURCE/ NO. OF FACILITIES RESPONDING	% (95% CI)
Safety		
Designated behavioral health rooms	9/18	50 (29-71)
Security presence: 24 hours	5/18	28 (12-51)
Security presence: part-time	3/18	17 (6-39)
Ancillary staff security	2/18	11 (3-33)
Local law enforcement	8/18	44 (25-66)
Patient care		
Monitored in ED while boarding	12/20	60 (39-78)
Monitored in inpatient bed while boarding*	8/20	40 (22-61)
Inpatient psychiatry at facility	3/21	14 (5-35)
Social worker identifies inpatient bed	8/18	44 (25-66)
ED nurse identifies inpatient bed	16/18	89 (67-97)
Consulting†		
On-call psychiatry consultation available	6/19	32 (15-54)
Ancillary behavioral health provider available	14/19	74 (51-88)
No psychiatry consultation available	4/19	21 (9-43)
Transportation		
EMS	6/17	35 (17-59)
EMS or law enforcement	11/17	65 (41-83)

*In intensive care unit or general medical unit. †Some facilities had both on-call psychiatry and ancillary behavioral health services available for consultation.

Discussion

This study provides a detailed analysis of the resources available to EDs in Mayo Clinic Health System community hospitals. The amount and type of resources available for caring for behavioral health patients in the ED varied across the system. Frequently, they were inadequate.

Other studies have addressed the risks associated with caring for behavioral health patients.[13,14] Our study showed that both patients with behavioral health problems and staff members caring for them are at risk of being harmed during the course of care. Half the sites in this study did not have rooms ideally equipped to ensure safety (eg, limited medical equipment, tempered glass and video monitoring); 73% did not have 24-hour security available. In those facilities without 24-hour security, staff in other areas of the hospital, including maintenance staff, were sometimes asked to provide security if a patient was violent. Alternatively, law enforcement personnel were sometimes called on to provide security.

A second concern is that some community hospitals lacked the personnel needed to perform administrative tasks (such as seeking an inpatient bed for the patient) or provide one-to-one care. The median length of stay for behavioral health patients before transport to inpatient psychiatric care was 20 hours. EDs are designed for immediate assessment and acute care and not for the management of long-term patients. Without staff to provide ongoing monitoring and care, behavioral health patients who board in the ED may not get medications they need or be reassessed and thus may be at risk for poor outcomes.[11,12] In 89% of surveyed facilities, the ED nurse reported that finding inpatient psychiatric beds for behavioral health patients diverted staff who otherwise would provide direct patient care. In addition, in 45% of facilities, behavioral health patients seen in the ED were transferred to inpatient medical unit beds or intensive care

unit beds to await transportation. This limits access to care for other patients requiring hospital-based treatment.

Distance to inpatient psychiatric care is another issue of concern. When an inpatient behavioral health bed was identified, the patient often had to be transferred a great distance.

This study has several limitations. First, not all information was provided by each site. Second, the information was obtained from each ED supervisor, and raw data were unavailable for verification. In addition, this study involved one health system and most of its facilities were in a rural setting. Therefore, the findings may not be generalizable to urban systems.

Conclusion

Providing safe and timely psychiatric care in the ED is a challenge. In community hospital EDs, the resources available to care for behavioral health patients are variable but generally limited. One thing that might be done to ease the pressure on these facilities is to create a centralized admission or transfer-coordinating service to facilitate the placement of behavioral health patients who present to the ED. Another is to avoid unnecessary hospital admissions by ensuring that patients with behavioral health needs have access to social workers and psychiatric consultation long before they ever arrive in an ED. **MM**

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APPENDIX

Questions from telephone interview script

- What is the total number of annual ED visits at your site?
- How many ED beds does your site have?
- Does your site have designated behavioral health beds within the ED and, if so, how many?
- What is the longest length of stay in your site's ED for a behavioral health patient?
- Does your site have inpatient psychiatric beds?
- If so, how many adult and pediatric psychiatric beds does it have?
- What is the farthest location to which you transfer behavioral health patients?
- Do you track your external transfers and, if so, how?
- Where are behavioral health patients who are awaiting admission monitored (ED, ICU, medical unit)?
- When an inpatient bed is unable to be identified, is the patient held in an alternate location (ICU, medical unit, other)?
- What type of ED providers do you have (physicians, APP,* both)?
- If the ED provider wants additional evaluation, such as a psychiatric consultation, is there someone available to assist?
- If additional assistance is available, who provides the assistance (psychiatric physician, psychiatric nurse, psychologist, social worker)?
- How is this assistance provided during regular hours (in person, teleMD, staffed on phone)?
- How is this assistance provided after hours (in person, teleMD, staffed on phone)?
- Who facilitates bed requests for admitted behavioral health patients (social worker, unit clerk, nurse, other provider)?
- If behavioral health patients are discharged to home, is a safety contract used?
- If a safety contract is used, in what form is it (written, oral)?
- Please summarize the steps of care for a behavioral health patient from presentation to disposition from the emergency department.

*Advanced practice provider (nurse practitioner or physician assistant)