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ORIGINAL PAPER

"Psychological Boarding" and Community-Based Behavioral Health Crisis Stabilization

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Abstract
This exploratory paper presents a case study where a community based mental health organization forging a partnership with a local hospital system to establish a crisis stabilization unit (CSU) to address behavioral health emergency care. The study takes a mixed methods case study approach to address two research questions; (a) did this approach reduce the overall length of stay in the hospital emergency departments? (b) What challenges did the taskforce face in implementing this CSU model? The paper shares recommendation from the findings.

Keywords Behavioral health emergencies · Rural · Crisis stabilization · Hospital · Community

Introduction

"Psychiatric boarding" refers to an incipient nationwide trend when patients suffering from behavioral and mental health emergencies approach hospital emergency departments (EDs) to seek treatment. A behavioral and mental health crisis, also known as a psychiatric emergency, commences when patients feel sort of out of control and become a danger to others and themselves. Symptoms of behavioral health emergency occur on a spectrum of extreme agitation, threatening harm to self or others, irrational thoughts, psychotic symptoms, screaming fits to a person with full-blown psychosis/hallucination, acute mania and co-morbid substance intoxication and withdrawal. Medical conditions such as hypoglycemia, traumatic brain injuries, hypoxia and meningitis among others can also spur behavioral health emergencies. Patients with behavioral health emergencies register a prolonged length of stay (LOS) in hospital EDs increasing the overall health cost of healthcare and reducing its capacity to serve patients with medical emergencies. Over the past decade, there has been a 45% increase in behavioral health emergency patients in hospitals (Zeller et al. 2014). The Affordable Care Act (2010) had targeted reduction of behavioral health emergency traffic from hospital EDs while encouraging hospitals to channel them to either an appropriate psychiatric facility or a crisis stabilization unit (CSU)/Crisis Intervention and Respite unit within hospital premises or communities. The assumption behind this approach is to reduce the duration of LOS and mitigate the prohibiting hospital ED care cost derived from behavioral health emergencies. Depending on the state of healthcare infrastructure, there had been a full variety of approaches adopted by hospitals, community based mental health organizations and other stakeholders of emergency care across rural and urban areas. This paper shares a case the study of an approach where a local hospital system forges a partnership with a community based mental health organization and other stakeholders of behavioral health emergency management to sponsor a CSU within the facility of a community. This study depicts its systemic impact and structural operative challenges and shares insight into the implementation logistics of such a service delivery model in a resource-strapped rural setting.

There is a nationwide shortage of psychiatric doctors and nurses that are dire in rural areas. Research suggests lack of competitive salary, stigmatization of the psychiatry

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as a profession, and low supply of professionally trained workforce contribute to vast swathes of rural areas having to run behavioral health systems of care with few or no supply of psychiatric doctors or nurses. When demand is high, and supply is low, rural areas could offer very few incentives to attract and retain a psychiatric medical workforce. With a dwindling and inaccessible community mental health care infrastructure, rural behavioral health emergency care patients, police officers, and first responders, who attend to a mental health crisis situations, often resort to 24 h accessible hospital EDs to seek care. In rural areas hospitals neither have proper workforce or resources to cater to the increasing incidence of behavioral health emergency patients. The situation is so extreme that due to space constraints, hospital EDs often assign behavioral health emergency patients to hold rooms and hospital hallways, a practice that rightfully earned the moniker of "psychiatric boarding" (Ginnis et al. 2015; Oliver 2015).

The call for delineation of mental and behavioral emergency health care for reducing healthcare expenses coevals with a call to integrate psychological and physical health care. The Affordable Care Act (2010) had prescribed a two-pronged approach to integrating primary mental and physical health screening at primary care level and at the same time delineate the two when it comes to emergency care. Proactively detecting conditions of behavioral and physical health at the primary care level and reactively treating them in a delineated, yet coordinated, setting at the emergency care level could provide efficiency of holistic healthcare care while saving healthcare dollars (Helleman et al. 2014). This model, derived from a public health approach to healthcare delivery, has been widely conscripted for adoption across health care system.

As stated earlier, rural areas bring their unique challenges when it comes to implementing behavioral healthcare. This exploratory study delves into a case study that showcases the challenges and impact of operating a CSW at the premises of a community based mental health organization in coordination with a local hospital system that ran a chain of hospitals strewn in the rural hinterland. The rural setting of this case study provides a panoramic view of the problem of addressing community mental health emergency care through an integrated model of healthcare delivery that is unique to a sporadically spread out and medically underserved communities. The study takes on a mixed method approach. It draws qualitative data from minutes of a series of meetings held by a multidisciplinary group, consisted of critical behavioral health emergency stakeholders from the hospital, law enforcement, the concerned mental health organization, transportation support and others, that acted as an advisory taskforce for the project. Moreover, quantitative utilization data obtained from the hospital ED before and after the CSU was operational to compare if the LOS duration significantly reduced over time. The paper takes a look at the emerging literature on the topic, identifies existing knowledge on the rural settings and provides a context for this study by describing the environment of this current research. The paper, further, lays out the methodology, the results, and ends with conclusive insights and suggestions for the future course and ongoing learning from the project.

An Overview of Challenges to Community-Based Emergency Behavioral Health System of Care

Mental Health Care System Act (1980) had deinstitutionalized mental and behavioral health care from inpatient psychiatric institutions to a community-based model. The denationalization push aimed at reducing the chasm between psychological and physical health care and bring about a community-based holistic, integrated health approach (Al et al. 2014). However, over the years, the Post-Carter period had witnessed a gradual and consistent decline in funding to support the community-based infrastructure that necessitates such an endeavor (Rosenbergn and Rosenberg 2012; Zeller et al. 2014). Between 2005 and 2010 the number of psychiatric beds in EDs of hospitals had been reduced by 14% (Torrey et al. 2008). In rural areas, this decline had been more steep and brutal. Lack of psychiatric healthcare workforce in the hospitals across rural regions further contributed to a structural shrinkage of psychiatric services.

As a result, patients with behavioral health emergencies, which include those who only require counseling and those who needed a complete mental health evaluation and treatment, began to approach the law enforcement. It became incumbent upon the law enforcement officers to make a determination on their behavioral health and call an ambulance to refer patients to hospitals. The law enforcement officers and other first responders are not trained to make that decision, especially in uninitiated rural settings, yet they were thrust into this by default (Van Nieuwenhuizen 2013). Whether a given patient required attention from a medical practitioner or just required, counseling and temporary help in self-soothing require an informed judgment that comes with training and practice. Social workers and other health professionals trained in behavioral health crisis interventions can make that judgment (Manton 2013; Zeller 2010).

A 2012 report by the Treatment Advocacy Center shows a 28% reduction in the number of psychiatric boarding facilities in hospital EDs across the nation and rural areas that rate was 45% (Nicks and Manthey 2012; Torrey et al. 2005). This reduction in hospitals' capacity to take on psychiatric patients sprung from the mental health deinstitutionalization tenet, yet concomitant velocity in investment on community mental health services did not materialize,

severely compromising the emergency mental health care response capacity in rural areas. Meanwhile, the rate of psychiatric diagnosis rose by 30% during the same decade when the in-patient psychiatric facilities shrunk and community-based emergency behavioral health response facility remained underdeveloped (Oss 2014; Torrey et al. 2010). Moreover, there are various disincentives for hospitals and primary care to not integrate behavioral and mental health emergency treatment into their system of care. Low reimbursement rates, heightened scrutiny from payers, and a higher percentage of uninsured patients are few of challenges, that kept them non-committal (Boscarato et al. 2014; Oliver 2015).

Hospital EDs, therefore were keen to outsource their non-medical emergency services to hospital-based crisis care units or community-based ones that could provide home-like comfortable settings, serviced by well-trained trauma-informed staff and would be financially feasible (Alakeson et al. 2010). As per the estimates of Kaiser Family health statistics, a hospital ED bed on average costs about $1625/day for state/local government-run hospitals, $2025/day for for-profit private entities, and $1629/day for not-for profit-private hospitals (Oh 2012). A cost-benefit analysis by Emergency Medicine International further suggests that psychiatric patients have three times more LOS than non-psychiatric patients in hospital EDs accruing $100/hour/bed costs in overall healthcare expenditure (Oliver 2015; Oh 2012).

Moreover, patients suffering from substance disorder, or mild psychosis requiring counseling and not a complete bio-medical checkup tend to register a higher LOS statistics that further contribute to a rising healthcare cost. A 2012 nationwide study of EDs by the National Association of State Mental Health Program Directors revealed that 70% of hospital EDs reportedly boarded psychiatric patients, and 10% of patients overshot their LOS by several weeks from the average statistics of LOS in those facilities. The Ambulatory and Hospital Care Statistics Branch (2010) reported that a majority of patients in EDs had 4–6 h of average LOS, while behavioral health patients had an average LOS of 7.2 h with outlier cases going up to 24, 48 and in some cases 72 h and more (Nicks and Manthey 2012; Niska et al. 2010).

Washington State Supreme Court became the first to mandate hospitals across the state to not admit or board psychiatric patients in hospital EDs that does not have a separate psychiatric emergency unit (Johnson 2014). South Carolina, too has instituted psychological telemedicine services where certified therapists work in tandem with medical emergency teams to address behavioral health emergencies (American Telemedicine Association 2012; Hilty et al. 2002; Reese & Stone 2005). McHenry County, Illinois established a separate psychiatric ED within the premise of hospitals, adjacent to a regular medical ED (Johnson 2014).

The modus operandi of behavioral health emergency crisis intervention can mean different things in various parts of the country, from hospital-based observation to halfway houses to separate psychiatric facility within hospitals to distinct crisis stabilization centers run in partnership with local community-based organizations (Kanel 2014; Manton 2013). Few states have created a Comprehensive Psychiatric Emergency Programs (CPEP) to avoid overutilization of acute inpatient hospitalization services. The CPEP provided timely triage, assessment, interventions and controlling inpatient admission and provide crisis intervention in the community. The CPEP utilized hospital-based intervention services and supplemented that with extended hospital beds to provide for additional assessment, evaluation, and stabilization of acute psychiatric symptoms for up to 72 h. Moreover, CPEP also included crisis outreach services in the community that contains clinical and crisis intervention treatments. Finally, CPEP's crisis residence services in the community address temporary residential and other necessary support services. Similarly, psychiatric emergency services (PES), Extended Care Crisis Beds, and peer-supported "The Living Room" model that added peers to the workforce in crisis facilities with positive results. Most of these services have instituted an integrated health approach where they could employ medication if necessary (Sample 2007). Furthermore, there has been a long-standing practice of community mental health organizations partnering local hospitals to deploy crisis counselors on call to hospital EDs to address non-medical patients (Kanel 2014; Zeller et al. 2014).

The above approaches are all useful, yet they are context-specific, i.e., depending on the location, the availability of psychiatric workforce and access to resources determine which method is best for a particular region. During the time of this study, community-based CSUs in rural settings took a novel approach by installing a distinct behavioral health facility in the community. Social workers, psychologists, counselors, peer support providers, nurse practitioners and emergency care physicians, connected through telecommunication and transportation, provided an integrated approach. CSU also included other stakeholders to behavioral health emergency by creating an advisory taskforce consisting of law enforcement officers, transportation managers, local hospital administrators, ambulance services providers other first responders, social workers, nurses, and, depending on the availability, medical doctors, psychiatrists and psychiatric nurses. The CSUs rely on referrals from hospital EDs and provide services in hospital sites as well as inpatient service provisions in their community-based brick and mortar facility; the latter relies on shuttling of patients from various hospitals to their centers.

CSUs operated by the community-based mental health organizations intend to bring about a culture change in

communities by creating awareness among residences, first responders, law enforcement and prospective patients to identify non-medical behavioral health emergencies and detour that traffic through self-referrals or other means to the CSUs instead of hospital EDs. Community-based mental health facilities in medically underserved rural areas where psychiatrists and behavioral health nurses are either non-existent or scant in supply recruit on-call nurse practitioners and phlebotomists to integrate medical care into their settings. Rural areas lack telepsychiatric services and at times one psychiatrist, overstretched, serve large constituencies making their services unaffordable for CSUs. A multidisciplinary team helps CSUs bridge the conceptual gap in abilities to differentiate the spectrum symptoms from behavioral to physical health emergencies. For example, law enforcement officers are prone to treat all emergencies as a medical one, CSUs hope to psychoeducation first responders about behavioral health emergencies and retool them with skills to recognize and channel non-medical patients to its door.

Methodology

This study examines a case study of a newly established CSU administered by a community-based mental health organization in a medically underserved rural area. The CSU had forged a partnership with a company that operated a local area hospital network. This study uses the utilization data of the CSU and transcript data from the meeting minutes of the multidisciplinary advisory taskforce that included social workers, law enforcement officers, emergency transportation representatives, nurses, doctors, and administrators. The hospital network involved with this particular CSU operated three EDs in a sporadically spread out rural landscape spanning 17 rural counties. The purposes of the study are twofold; first, to explore if the utilization data after the introduction of the CSU model to show if there is a significant reduction in the overall LOS among patients; second, to identify barriers, challenges and protective factors in implementing a behavioral health emergency program in a rural setting. The CSU model relies on the tenet that community mental health is an interdisciplinary theater of practice that calls for coordination and consensus building among different stakeholders. The 39 rural counties, located in southern Illinois, contained one psychiatric and no defined trained psychiatric nurse practitioner part of the workforce. The incentive from the Affordable Care Act (2010) and seed funding from the state of Illinois supported this project on an experimental basis.

Setting

A large non-profit community-based behavioral health organization housed the CSU. The CSU served three hospital EDs located at the distance of 10 miles radius. The CSU, operated round the clock 24 h a day, 7 days a week, and 365 days a year, consists of two units, one for crisis intake and assessment, and the other for crisis intervention and stabilization. The CSU has a capacity of accommodating eight clients in their in-patient facility for an average 3–5 days. The CSU utilizes various interventions such as peer support, counseling, mental and physical evaluation using telepsychiatry facilitated by an in-housing nursing professional. The partner hospital EDs, local primary care physicians, law enforcement, school and other multidisciplinary providers that are part of the advisory taskforce help creating a referral network for CSU. Considering only 1.38 % of the total population in the region receives any kind of behavioral health crisis assessment, which is below the national average, the introduction of this CSU is a significant step. These particular settings have patients who need.

The multidisciplinary advisory taskforce meets bimonthly to coordinate programs, psycho-educate each other and troubleshoot problems. The CSU applied the Lean Six Sigma methodology to organize behavioral health emergency patients. According to Lighter (2011), the Lean Sigma process promotes inter-professional collaboration to slow down readmission rates and helps incrementally decrease the LOS. The CSU carries out comprehensive assessment during admission of patients and provides extensive psychoeducation of patients at the time of their discharge. Awareness about behavioral health emergencies increases the likelihood of patients self-referring themselves. In the first quarter of the program, the CSU coordinated 21 patients referred from two hospitals EDs, followed by 11 patients from the third hospital. The comparison of utilization data before and after the CSU intervention show impact on LOS. The advisory taskforce met in the premises of the CSU, all their meeting minutes have been duly documented and records kept at the electronic system at CSU. An institutional board permission had been obtained before conducting this study and the CSU management had allowed access to both utilization and meeting minutes data shared in this study.

Data Analysis

A qualitative data analysis coding scheme has been used to find common thematic underpinnings across the 15 sets of meeting minutes from the discourses from the Advisory Taskforce meetings. ATLAS t.i., a textual thematic analysis tool assisted in identifying the thematic codes using an iterative technique of constant comparison drawing from a grounded theory approach (Maxwell 2013). Analysis of the

meeting minute discourses led to the creation of a descriptive framework on the challenges faced by this particular CSU in this setting. The meeting minutes consists of appropriate quotations verbatim from participating members of the taskforce. Both pre-and-post utilization data was tabulated and compared using non-parametric bivariate comparison tests.

Results

This section first describes the results of the taskforce minute meeting thematic analysis data, followed by the utilization pattern comparison data.

Taskforce Meeting Minutes Transcription Analysis

Table 1 identifies the different stakeholders with their various professional backgrounds who participated in the meetings.

The Table 1 shows that the advisory taskforce consisted of a diverse group of interdisciplinary and inter-professional members. Representatives of hospital administration, nurses, fire department, ambulance services, hospital community benefit management, law enforcement, hospital-community health coordination, and behavioral health crisis team members from the community-based organization participated in the advisory taskforce meeting. Analysis of transcripts of the meeting minutes data show a universal acknowledgment and need among all the participants in the taskforce that better communication and coordination strategy among all the inter-professional service providers would make emergency behavioral health service delivery a more efficient and cost-saving enterprise. A thematic analysis of the meeting minute transcripts also identified several challenges to this particular system of service delivery model. Table 2 catalogs a list of critical problems that thematically emerged from the analysis of meeting minutes transcript data. The study spewed thematic topics; (a) rationale for CSU locating outside the premise of the hospital, (b) necessity of culture change in the community regarding approaches to behavioral health emergency services, and (c) barriers to the CSU system of care delivery.

Rationale for CSU Locating Outside the Premise of the Hospitals

There had a been a consensus among the taskforce members that considering the lack of centrality of any of the hospital locations, having a CSU located at an approximate equidistance from the three hospitals, it was appropriate to have the CSU operate in the premises of the community-based organization. The transcript deliberations revealed the rationale for this decision hinged on two primary reasons. First not all the participant hospitals have the resources, expertise, and infrastructure to serve non-medical behavioral health emergency patients, and second, a centralized location could help the CSU reach out to more constituents in the widely spread landscape of a medically underserved rural community. A state grant, along with financial support from the company that ran the chain of hospital in the area, had sponsored this program. The CSU strategy also involved visits from the behavioral health emergency staff to all the hospitals in circumstances when patients needed a complete mental health evaluation. However, almost 70% of the referred behavioral health emergency cases in the hospital ED was nonmedical. The pooled resources from the community-based organization, the state grant, and the healthcare

Table 1 Stakeholder positions

Position title and agency	# of positions
Fire chief	1
State representative	1
Director of nursing, hospital	1
Project coordinator, transportation services	1
University professor	1
Healthcare organization community benefits manager	2
CEO, local healthcare agency	2
COO, local healthcare agency	1
Crisis managers, local healthcare agency	2
Police chief	1
Community health coordinator, community healthcare organization	1
Quality manager, community healthcare organization	1
Assistant director of crisis services, local healthcare agency	1
Vice president of community affairs, local healthcare organization	–
Total members	17

Table 2 Committee member—identified barriers to CSC program

Barrier	Member comment
Emergency Medical Treatment and Labor Act	While EMTALA allows hospitals to transfer clients to a psychiatric unit for treatment services, it does not allow for the transfer of clients to appropriate community resources that would provide immediate treatment
Transportation	Having an effective regional transportation system that allows safe access to emergency crisis services at a lower cost is valuable to the client, but often unfunded and therefore out of reach for clients serviced in a behavioral health emergency
	A large percentage of clients served at the hospital ED are often transported by a local ambulance service, which is expensive and restricts patients with medical issues from receiving treatment
	Patient identification and a proper order for complaints needs to be logged to give priority for transportation
Funding	Providing safe and cost effective services to clients in a behavioral health crisis outside of an ED would reduce the overall cost of emergency services for this population of individuals, but funding for innovative ideas is presently unavailable
Service and tracking	Some consumers that come to The Crisis Center do not bring their medications. If the consumer does not have any refills remaining, a doctor would have to ok a 3–5 day supply of medication
	A code review is needed to ensure nothing is missed and there is length of stay tracking for the ED. There is a need to develop unique client identifiers for linked tracking purposes
	Timely information is needed for hospitals
	Resistance in Carterville for education regarding youth suicide
Marketing	An effective pitch should be determined to include presentations instead of just introducing new services
	Utilization of other social media outlets in addition to Facebook
Assessments	Director of Crisis Services o voices concern about obtaining an assessment of a patient to the hospital if The H Group needs to send a patient to the hospital for medical clearance to admit the patient to a mental hospital
	SIH VP of Community Affairs wanted to see an assessment in place that tracks data to show substantial value provided at site
Medical errors	Communication handoff needs to be handled efficiently to avoid HIPAA violations

company could enable the CSU to sponsor a warm, comfortable and non-aggravating environment. According to the discourses revealed there had been an apparent dichotomy in the discussions of the taskforce members about contrasting variation between the hospital environment in this area and that of the CSU. One community member commented, "instead of the sterile walls and pathological environment of a hospital ED, counselors provide a welcoming environment for the patients. CSU's location outside the premise of the hospitals protects patients' privacy concerns and help reduce stigmatization in rural settings."

Necessity for Culture Change in the Community Regarding Approaches to Behavioral Health Emergency Services

Another important theme that emerged from the taskforce meeting transcript analysis is the need for a culture change in rural community when it comes to mental health emergency. The taskforce had identified first responders to behavioral health crisis as the sine qua non to culture change. First responders include patients' relatives, law enforcement, ambulance transporters, and nurses. The taskforce members felt that psychoeducation training to all professional disciplines to help first responders, patients' caregivers and eventually the patients themselves could help them differentiate between medical and nonmedical behavioral health emergencies. The CSU would eventually be successful only when the patients self-refer themselves to the CSU without mediation through the hospital ED. This required a culture change, and the taskforce members also recommended that along with psychoeducation the CSU and the hospital ED to jointly launch a public relation awareness campaign in the area. The inter-professional taskforce members discussed employing social marketing techniques to promote the CSU's behavioral health emergency services to the community. Cultivation of community support through advocacy and other means of public awareness campaign using social media, internet radio, newspapers, and other patient engagement tools. Maintaining follow up care is crucial for patient engagement. Taskforce members, furthermore, felt that the CSU could begin psycho-educating their existent patients during their stay at the CSU, so that habitual patients could self-refer themselves to the CSU instead of report to the hospital EDs.

Barriers to CSU System of Care Delivery

There are several barriers and challenges that the taskforce members discussed during their deliberations. As identified in Table 2 above, during this study, transportation logistics

among the three hospital EDs emerged as one of the crucial challenges to this model. Getting patients to and from the CSU in a sparsely distributed population across a broad swathe of rural landscape poses a problem to the taskforce. Figure 1 chronologically lays out the flow of services that ensue once a patient has been identified as non-medical behavioral health emergency patient without the need for a complete mental health evaluation.

Lack of transportation resources makes it unaffordable and inhospitable for patients to travel miles to seek out behavioral health crisis services at CSU. As discussed earlier, one of the other challenges that arise from the transcript analysis is the existence of important differences among taskforce members in understanding on what behavioral health emergency entailed. The transcripts further show that members of the taskforce weighing options to introduce telemedicine and telepsychiatric services connecting the hospitals with the CSU. However, financial support for such infrastructure remained a challenge. The partnership between the hospital networks and the community-based organization relies on a win–win model where both parties benefit, yet transcript of the taskforce meetings suggests that the hospital administration also wanted to develop their telepsychiatry infrastructure considering the scarcity of competent human resources in the given area. The taskforce also discussed other challenges such as how to manage high turnover rates of clients, the challenge of limited training opportunities for the CSU staff and how frequently CSU staff should receive training to be abreast of necessary knowledge about the hospital settings.

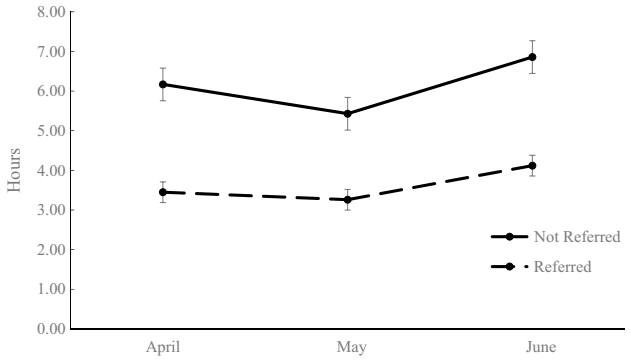

Fig. 1 Average of length of stay in hospital as a function of whether individuals were referred or not referred to a crisis center in 2015. Error bars represent standard deviations

Utilization Data

The tracking and plotting of the utilization data of the hospital ED help answer the research question if the introduction of the CSU as an intervention help reduce the LOS of patients. Figure 2 plots LOS data across three timeframes. The dotted line signified the behavioral health emergency patients seen at the CSU and solid lined referred to patients seen at the hospital ED with similar symptoms. The average LOS of all patients were compared across three time-frames to show if there had been any reduction in the LOS across Time A, B and C. Figure 2 indicates that the LOS had undergone significant reduction for patients who were referred to CSU than those who were seen at regular hospital ED.

In Time 1, the average LOS for clients treated with standard practices at hospital EDs were 6.17 h, while for CSU patients it was 3.45 h—a reduction of 2.72 h. The average LOS behavioral health emergency patients receiving standard Hospital ED treatment was 5.43 h compared to only 3.26 h for those seen at the CSU—a 2.17 average reduction of LOS. In Time 2, there were three patients that exhibited suicidal ideation, drug overdose, and a chronic medical condition respectively increasing their average LOS. After removing the three outliers, the average LOS further decreased by another 1.6 h. The LOS in Time 3 reduced by 4.12 h between when behavioral emergency patients were moved to the CSU. A non-parametric Mann–Whitney test indicated there was a statistically significant difference for change between CSU and hospital ED: in Time A (Mdn = 2.72, n = 22), Time B and Time C (Mdn = .4.12, n = 27), U = 1089, (p = .04).

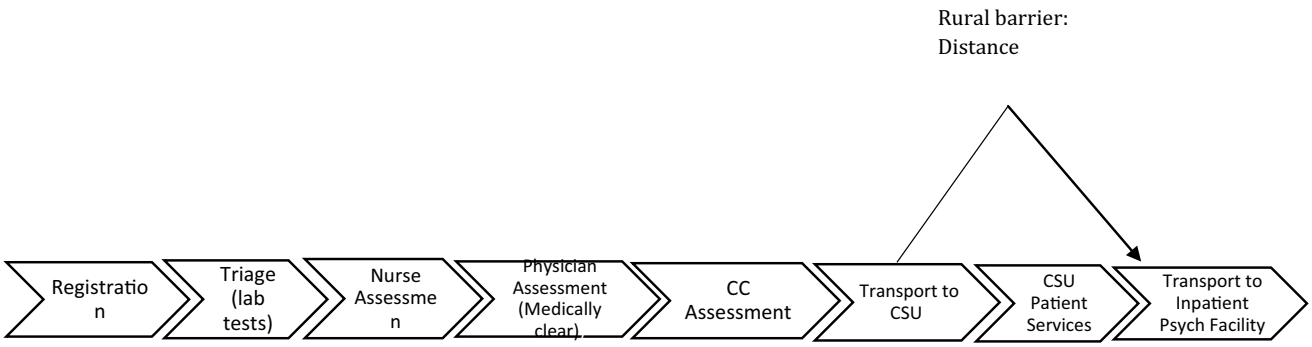

Fig. 2 Community Crisis Center Model of behavioral health crisis stabilization process with identified barriers

Discussion

This case study is an example of one model of context-specific community-based behavioral health crisis intervention. The context, here, is essential, a medically underserved rural community serving a vast expansive sporadically populated a rural area with limited resources, inaccessible psychiatric workforce and a high incidence of non-medical behavioral health patients reporting to local EDs. Rural areas, where community mental health infrastructure had been underfunded and incapacitated for long tend to experience more traffic of non-medical behavioral health cases necessitating only counseling rather than elaborate and expensive intake procedures entailing of medical emergency services. Psychological boarding in hospitals across rural America is increasing the healthcare cost and shucking hospitals' capacity to serve their core constituency of patients. Thus, the result of the study shows that in this particular context the taskforce members that included representatives from the hospitals felt a bifurcation of psychological and behavioral health emergency services from hospital EDs to a more centralized premise of a partner community-based mental health organization could be more efficient and cost-effective option.

However, the discourse analysis of the taskforce meeting minutes indicates that the model implemented experienced challenges with coordination logistics between the hospital EDs and the CSU, as well as transportation logistics ferrying patients back and forth between the hospital and CSU locations. The result further shows that the model did significantly reduce the overall LOS of patients in the hospital EDs, saving healthcare dollars. There are two pertinent questions that arise out of the results are, first, is it worth pursuing this particular CSU model of behavioral health crisis intervention from a cost-benefit point of view? And secondly, what kind tinkering in the system is necessary to address the challenges?

A cost-benefit analysis showed that the CSU model described in this case study resulted in a 20% reduction in LOS, preventing hospitalization of 537 nights in 2014. According to the Agency for Healthcare Research and Quality (2013), the mean per diem cost for a hospital ED stay without surgery comes to around $2560. One day stay at the CSU costs around $539/day, accruing a saving of about $2021/per night. In 2014 alone, the 537 days of less hospital emergency hospitalization in this community attributed to the CSU had saved about $1.1 million. Estimates from the community mental health organization that administer the CSU show that behavioral health assessment screening that the CSU staff conduct across the three hospital EDs in the area had saved about 3 million dollars in proactive prevention of non-medical ED stay. Even if the transportation costs, at the time of this study, was adding costs to the expenses, it was still saving in healthcare dollars.

During the time of this case study, the CSU model was at its inception stage. New changes and sorting out of logistics were on the horizon to smoothen the service delivery and increase efficacy. Partnership 1 with a community-based organization to manage and execute the behavioral health crisis interventions at the CSU has its advantages. A community-based organization is more entrenched in the referral networks of the community than that of the hospitals. Thus, any culture change model that calls for incremental change in perspective in the community and among the first responders to self-refer or refer behavioral health crisis patients to a different facility other than the hospital could expect community-based mental health organizations to carry that task forward. Community mental health organizations possess expertise in case of management including home visits to follow up on discharged patients, especially in rural areas. Though other models of integrative healthcare have called for the provision of mental and physical health services in a well-integrated facility when it comes to a behavioral health emergency in underserved rural areas such proposition entailed higher healthcare cost.

As the result of this case study show that the community-based organization did create an advisory taskforce with members from all-inclusive stakeholders serving behavioral health emergency patients. The model shows that the multidisciplinary taskforce met regularly and helped the community-based organization coordinate with the hospital system in the area. The transcript data of the meeting deliberations show that for various reasons the hospital systems in the area are willing to hand over the non-medical behavioral health patients to the CSU while staying engaged in a system of integrated care. The CSU could provide a need-based behavioral health crisis services that were not possible for hospital EDs to perform. Moreover, some of the behavioral emergency care patients were financed through the Medicare and the Medicaid, and thus the CSU turned out to be more cost-effective for such payment mechanisms. In various parts of the country, hospitals are partnering with community-based mental health organizations to outreach to communities, creating awareness on behavioral health and jointly carrying out projects and applying for funding opportunities. The Affordable Care Act (2010) had established various incentives for hospitals and community-based organizations to engage with each other to reduce behavioral health traffic to hospital EDs.

During the time of the study, the primary focus of the program was to create an alternative conduit to screen patients and intervene primarily through counseling on non-medical patients. The CSU did not include a psychiatrist physician or a psychiatric nurse in its team because of the sparse

availability of professionals with that expertise in this area. However, a psychiatrist was on the payroll of the CSU as a consultant on a need basis. Patients with existing mental health conditions such as psychosis/hallucination, acute mania, and co-morbid substance intoxication and withdrawal could avail psychiatric services at the CSU. However, the utilization data suggested not a majority of behavioral health emergency patients availed a full mental health evaluation or were already on psychiatric medication. The taskforce discussed the possibility of introducing telemedicine and telepsychiatric connectivity between the hospitals and the CSU. The expectation was that introduction to telemedicine could provide capabilities to the CSU and reduce transportation cost. The promise of the utilization data showing even in the current arrangement of service delivery the overall LOS had decreased.

The case study shows that response mechanisms to behavioral health emergency are context specific. In the context of this case study, there are three explicit models of service delivery that have been discussed in the taskforce meeting minutes. The operation is in model one stage. However, the taskforce members aspired to take the operation to model two and model three levels. In model one the patient arrives at the ED, mostly prompted by the law enforcement, other first responders or self-referring patients themselves. Upon screening and following standard emergency care procedures, the hospital staff determines if the patients are wholly non-medical and required only behavioral health counseling, or if a complete mental health evaluation is necessary. For instances of the former the patient gets referred to the CSU and in case of the later CSU staff visits and conducts an assessment and screening along with other ongoing joint medical procedures at the hospital. In model two, the taskforce intended to conceive a culture change scenario, where the repeat patients, the first responders and the community at large are aware enough to make a surface level differentiation between behavioral and medical health emergencies and accordingly could approach the CSU and the hospital ED. Public relation campaigns, psychoeducation and another mechanism to raise the consciousness on this matter had been discussed elaborately. Finally, the model three addressed not only the behavioral health conditions that required only counseling, but also bolster the capacity of the CSU through additional infrastructural accretion in forms of telemedicine followed by, and contingent to funding support, telepsychiatric technologies. The final two models were in the pipeline and widely discussed as visions for the program by the taskforce. If the proposed model three comes to fruition, the CSU will accrue full mental health evaluation and capabilities to stabilize patients who are acutely dangerous to self or others and their emergency medical condition requiring continued stabilization. This case study narrated the promise that the model one stage of the intervention had brought about while the community trudges forward to realize the visions of model two and model three.

Compliance with Ethical Standards

Conflict of interest There is no conflict of interest in the content presented in this study.

Ethical Approval This study has been approved by the Institutional Review Board of the Southern Illinois University Carbondale. The institution has assurance on the file with the USDHHS office of Human Research Protection. The Assurance number is 00005334. The protocol number is 14359.

Informed Consent As per the IRB requirement an informed consent has been obtained from the organization and participant subjects of the program.

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