

Examining 23-Hour Crisis Observation and Stabilization Services Efficacy: A Scoping Review

Sara A. Choate

sara.choate@louisville.edu

University of Louisville

Brian P. Schaefer

University of Louisville

Rachel Odes

University of Wisconsin–Madison

Amie Baltes

University of Louisville

Samir Kumar Sarker Rony

University of Louisville

Geremew Wana

University of Louisville

Alyssa Kearney

University of Louisville

Gabriel Jones, Jr.

University of Louisville

Hayleigh Kampman

Indiana University Indianapolis

Ashlyn B. Burns

Indiana University Indianapolis

Research Article

Keywords:

Posted Date: August 13th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10551558/v1>

License: © ⓘ This work is licensed under a Creative Commons Attribution 4.0 International License. [Read Full License](#)

Additional Declarations: No competing interests reported.

Abstract

Behavioral health crises, including suicidal and homicidal ideation and substance use emergencies, represent a growing public health challenge across the globe. In response, healthcare systems and communities have invested in crisis stabilization infrastructure designed to divert individuals from emergency departments and the criminal justice system. Community-based crisis stabilization models have expanded rapidly as a result, and policymakers have increasingly prioritized evaluating whether these services meaningfully improve outcomes.

With the rapid increase in published studies about crisis services, we conducted a scoping review of the literature to understand the current landscape of 23-hour crisis observation and stabilization service models. We searched MEDLINE (PubMed), Embase (Elsevier), Psychology and Behavioral Sciences Collection (EBSCOhost), and APA PsycInfo (EBSCOhost) to identify studies focusing on a 23-hour crisis observation and stabilization services. The search was limited to research studies in the English language published between 1997 and June 13, 2025. Key search concepts included crisis-related terms in combination with populations of interest, including terms related to substance misuse, mental health, and intellectual and developmental disabilities. There were 10,693 studies identified and screened for eligibility at the title and abstract stage. Four hundred ninety studies were assessed at the full text stage as potentially eligible. A total of twenty studies were assessed and included in this study. We extracted pertinent details from each study including, but not limited to, the study aim, design, setting, and characteristics of the crisis unit design. Studies were also categorized into one of three mutually exclusive groups: implementation/evaluation of services, effectiveness, and service availability/population health studies. The Patient-Centered Outcomes Framework for Evaluating Behavioral Health Crisis Care was used to categorize extracted data into five themes: structure, implementation, and utilization of the system, in addition to health and social outcomes.

Despite growing investment in 23-hour crisis stabilization services, the evidence base evaluating their effectiveness remains underdeveloped. Peer-reviewed studies tended to describe the characteristics of 23-hour crisis observation and stabilization services such as their hours of operation, admission criteria, referral pathways, staffing, and/or services offered. Quantitative measures identified tended to be descriptive and used proxies to measure the intended outcome which could reflect the insufficient and segmented data infrastructure needed to evaluate such programs. In terms of outcomes, only a portion of all possible social factors (e.g. housing stability) were described, and only short-term health outcomes were presented (e.g. acute care utilization). No long-term health outcomes were noted across included studies. In sum, our scoping review identified a critical need to examine more impactful measures to demonstrate the effectiveness of 23-hour crisis observation and stabilization services from a patient-centered perspective.

Introduction

Hundreds of millions of people are affected by mental health disorders across the globe, making it a leading cause of years lived with disability, where suicide alone accounts for more than 700,000 annual deaths (World Health Organization [WHO], 2022). Similarly, in the United States (US), behavioral health crises, including acute psychiatric distress, suicidality, and substance use-related emergencies, have become a major public health concern and a growing source of demand for emergency-response systems. Each year, these crises account for millions of behavioral health-related 911 calls and place substantial pressure on emergency departments (EDs), inpatient psychiatric services, and broader crisis-care systems (Burns et al., 2025; Rivard et al., 2021). A significant proportion of this burden may be reduced through comprehensive prevention, early intervention, and integrated mental health care strategies (Bitsko et al., 2022; Vigo, Thornicroft & Atun, 2016).

As a primary destination for mental health and substance use crises, the ED faces substantial pressure and overcrowding, partly because of limited access to alternative settings for crisis stabilization (Mojtabai & Olfson, 2020; SAMHSA, 2019). For instance, one in eight ED visits involves a behavioral health condition, yet many of these care settings are inadequately equipped to provide timely, specialized psychiatric or substance use care (Laderman et al., 2018). As a result, individuals in crisis may experience prolonged wait times, fragmented care, overcrowded environments, and limited connection to ongoing treatment and community-based supports (Nicks & Manthey, 2012; Keslar et al., 2025). Moreover, patients often perceive these environments as chaotic, isolating, and poorly suited to address their behavioral health needs (Clarke, Dusome & Hughes, 2007). In some cases, individuals will return to the ED multiple times, contributing to the ‘revolving door’ of crisis care, which is not patient-centered (Wise-Harris et al., 2017). This results in costly, ineffective, and avoidable (Sandoval et al., 2010; Johnson et al., 2021) healthcare utilization, and may negatively influence future help-seeking behaviors among individuals experiencing behavioral health crises (Yang, Glover & Wood, 2025).

To bridge these gaps, behavioral health crisis systems have increasingly shifted toward community-based stabilization models designed to provide rapid assessment, short-term intervention, and linkage to ongoing services outside traditional inpatient settings. For instance, crisis receiving and stabilization services have been identified as a core component of an effective behavioral health crisis continuum, emphasizing the need for “no wrong door” access to care through coordinated crisis systems (SAMHSA, 2020). These models include psychiatric observation units, crisis stabilization units, sobering centers, living room models, and 23-hour crisis observation and stabilization services (23-hour COSS), and are designed to reduce unnecessary hospitalization and divert individuals from EDs and the criminal justice system (Warren et al., 2016).

The 23-hour crisis observation model emerged from earlier psychiatric emergency service holding areas and short-term observation programs designed to provide brief assessment, stabilization, and disposition planning before inpatient admission (Gillig et al., 1989). Early models demonstrated that short-term psychiatric observation could reduce unnecessary inpatient use by allowing clinicians time to assess whether acute symptoms could be stabilized without hospitalization (Francis et al., 2000). This approach later informed crisis stabilization services, including 23-

hour crisis stabilization units that provide time-limited observation and crisis respite as alternatives to ED boarding and psychiatric hospitalization (SAMHSA, 2014; Saxon, Mukherjee & Thomas, 2018). Building on this history, 23-hour COSS have gained increasing attention as an intermediate level of care situated between outpatient services and inpatient hospitalization (SAMHSA, 2025a; Anderson et al., 2022). The 23-hour time limit is of particular importance in the United States, where federal funding available for crisis services is often limited to one 24-hour period; these funding options vary by state (Edmonds et al., 2025).

Additionally, these programs typically provide continuous monitoring, psychiatric assessment, medication management, de-escalation, peer support, and discharge planning within a brief observation period lasting fewer than 24 hours (SAMHSA, 2025a; Balfour & Carson, 2024). Following the implementation of the 988 Suicide and Crisis Lifeline, crisis stabilization facilities are regarded as essential components of comprehensive behavioral health crisis systems (SAMHSA, 2024). Moreover, studies reported that short-term crisis stabilization models reduce unnecessary inpatient admissions, improve patient throughput, expand access to behavioral healthcare, and support more cost-conscious care delivery while maintaining clinical safety and patient-centered care (San Thinn et al., 2015; Anderson et al., 2022). Further evidence highlighted the role of these programs in reducing ED utilization, facilitating linkage to outpatient care, and improving continuity of care for individuals with complex behavioral health needs (Balfour & Carson, 2024; Smith-Bernardin, 2021).

However, existing literature demonstrates substantial variation in staffing structures, funding mechanisms, referral pathways, physical environments, and service integration across crisis stabilization models (Warren et al., 2016; Smith-Bernardin, 2021). Persistent barriers, including workforce shortages, fragmented reimbursement structures, limited community resources, and geographic disparities, continue to affect the implementation and sustainability of crisis stabilization programs (SAMHSA, 2024). While individual studies have examined operational characteristics and outcomes of specific crisis stabilization models, the broader evidence base regarding 23-hour COSS remains fragmented across populations and settings (Anderson et al., 2022; Magarey et al., 2023). Additionally, there has been limited synthesis of evidence on the structure, implementation, utilization, and social and health outcomes associated with 23-hour COSS (Magarey et al., 2023).

Beyond these structural and implementation challenges, a more fundamental gap concerns how the success of 23-hour COSS is defined and measured. Existing crisis-service research has noted the lack of standardized performance measures for behavioral health crisis and psychiatric emergency programs, limiting comparison across models and settings (Balfour et al., 2016). Much of the available evidence evaluates crisis stabilization using system-centered indicators, including ED diversion, reduced inpatient admissions, shorter lengths of stay, patient throughput, and cost containment (Anderson et al., 2022; Burns et al., 2025; Magarey et al., 2023). Although these outcomes are important for assessing service efficiency, they provide only a partial understanding of whether brief crisis stabilization produces meaningful benefit for individuals in crisis. Existing reviews of short-stay crisis units report reductions in ED waiting times and inpatient admissions but also emphasize the need for further research on patient experience, clinical outcomes, and social outcomes (Anderson et al., 2022). Similarly, SAMHSA's crisis-care guidance emphasizes timely, safe, person-centered, family-focused, and least-restrictive care, suggesting that crisis-service quality should extend beyond diversion from EDs or inpatient hospitalization alone (SAMHSA, 2025a). A 23-hour episode may reduce immediate system pressure without necessarily demonstrating crisis resolution, therapeutic engagement, perceived safety, dignity, continuity of care, or sustained connection to appropriate follow-up services. Recent work on patient-centered outcomes for behavioral health crisis care reinforces this concern, arguing that outcome frameworks should reflect the priorities and experiences of people receiving crisis services, not only administrative or utilization metrics (Burns et al., 2025).

To address these issues, this scoping review aims to synthesize existing evidence on 23-hour COSS. Specifically, this review aims to: (1) examine the extent and characteristics of research on 23-hour COSS; (2) identify system, social, and health outcomes associated with these services; and (3) identify gaps and opportunities for future research, policy, and practice. Thus, this review may inform the ongoing development of behavioral health crisis systems, guide reimbursement and implementation strategies, and support future comparative effectiveness research on short-term crisis stabilization models by mapping the current evidence base.

Methods

Because of the exploratory nature of this study, we selected a scoping review as the methodology. The protocol was designed, conducted, and reported in accordance with best practice guidance from the Joanna Briggs Institute (JBI) methodology and the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) checklist (Peters et al., 2022; Tricco et al., 2018). The study protocol is available in Supplementary File 1.

Employing a rigorous and systematic search strategy, the purpose of this scoping review was to synthesize existing research regarding 23-hour COSS outcomes associated with the receipt of behavioral crisis response care for people of all ages. Specifically, this review aimed to answer the following questions: 1. To what extent has the research regarding the use of 23-hour COSS to deliver behavioral crisis response care been undertaken? 2. What types of 23-hour COSS outcomes, including patient, provider and institutional outcomes, are associated with the receipt of behavioral crisis response care? And 3. What are the gaps and opportunities for future research, policy, and/or practice? To the best of our knowledge, this is the first scoping review to examine the global scope of 23-hour behavioral health crisis services.

The systematic searches for literature were conducted in MEDLINE (PubMed), Embase (Elsevier), Psychology and Behavioral Sciences Collection (EBSCOhost), and APA PsycInfo (EBSCOhost). The searches were limited to English language publications due to lack of resources for translation

services. Additionally, searches were limited to publications from 1997 to the date of the final search (June 13, 2025) given the momentum on jail diversion initiatives for mental health and substance misuse crises in 1997. The full reproducible search strategy for each database, along with the number of results from each database is provided in Supplementary File 2.

Search Strategy

The search strategy was developed by an experienced health sciences librarian (fourth author) in consultation with the first, second, third, and last authors. The PCC (population, concept, and context) framework and inclusion criteria informed the approach. Key search concepts include crisis-related terms in combination with populations of interest, including terms related to substance misuse, mental health, and intellectual and developmental disabilities. The search strategy included terms to capture key concepts, plus synonyms, plural forms, and British variations of American English terms. The search strategy was first developed using controlled vocabulary and field codes for PubMed then translated by the librarian for the other databases. Concepts were combined as needed using Boolean operators “AND” and “OR.” See Supplementary File 2 for complete details.

Multiple iterations of the search were run by the librarian and reviewed by the team until we reached agreement on a final search strategy that balanced sensitivity and specificity. To validate the search strategy, a set of seed articles was compiled early in the review process based on coauthor recommendations. These articles represented studies identified by the team as highly relevant to the review question and were used to assess search performance. The final search strategy was tested against this set and retrieved the majority of the seed articles. A small number of the seed articles were not retrieved by the final search, primarily due to domain-specific terminology (e.g., criminal justice - centered terms not reflected in the search query). Some of the seed articles not retrieved are included in the articles identified by hand searching. The team determined that the final search strategy provided sufficient sensitivity for the purposes of the scoping review.

Study Selection & Eligibility Criteria

Eligibility criteria were developed by SAC, BPS, RO, and ABB. The study selection process consisted of two screening phases: title/abstract and full text. Inclusion criteria for both phases were met when a study was (a) original research (reviews, letters to the editor, editorials, reports, and protocols were excluded); and (b) the setting or treatment met the research team’s definition of a 23-hour behavioral health-related crisis services space (clearly not a 23-hour/short-term service or space (24 hours or more), crisis stabilization units (CSUs) or Psychiatric Emergency Services (PES) units that explicitly stated that length of stay was over 24 hours and did not state that the unit was intended to serve patients for 24 hours or less, in-patient hospitalization only, mobile crisis, telehealth/virtual only, emergency department only were excluded). While some studies described short-term settings for mental health evaluation and treatment located within hospital emergency departments, we considered these to be distinct from standalone mental health units. Further, in some cases, it was difficult to determine inclusion based on the abstract only. To avoid filtering out potentially relevant articles, we were cautious and included ambiguous articles at this stage but filtered them out at the full-text phase if it became clear that the setting was not a 23-hour COSS.

The team employed a dual screening approach for both screening phases. A third screener resolved any conflicts that arose during the title/abstract screening (SAC, BPS, RO, or ABB) and full-text screening phases (SAC or BPS). The team met every two weeks to clarify discrepancies in understanding of eligibility criteria. We used Covidence systematic review software (Veritas Health Innovation, Melbourne, Australia) for deduplication, title/abstract screening, full text screening, and data extraction.

Data Extraction and Synthesis

A priori data extraction. After the full-text review, we extracted detailed information from all retained articles. Our data extraction tool included information about the study aim; study design; setting; participant information (number, reason for visit, and ages served); number of facilities; inclusion/exclusion criteria; unit design/description; service availability; average length of stay; capacity; space description; services provided; patient eligibility criteria; referral pathway and requirement; staffing; and payment model. We also extracted information about outcomes of 23-hour COSS reported in included studies.

Post-hoc categorization of extracted data. Upon review of the extracted data, members of our team (SAC, BPS, RO, and ABB) identified emerging themes across all included studies. In doing so, we recognized that the included studies could be categorized into three study types: implementation/evaluation of services, effectiveness, and service availability/population health studies. Hence, all studies were categorized into one of these three groups. When a study appeared to fit more than one category, SAC and BPS decided based on which study type it most embodied. Furthermore, after reviewing the outcomes that were initially extracted from the included articles, we recognized that many were aligned with outcomes with a previously published Patient-Centered Outcomes Framework for Evaluating Behavioral Health Crisis Care (Burns et al., 2025). While this is a generalized framework designed to guide the evaluation of behavioral health crisis services, we utilized this evaluation framework to synthesize the literature describing COSS outcomes. This framework was developed to provide a comprehensive understanding of the outcomes typically prioritized by different stakeholders in the public health sector, highlighting the importance of capturing outcomes that improve patient

experiences and recovery. Utilization of this framework was particularly valuable for this scoping review because it allowed us to document both the outcomes selected by the included studies, and those outcomes which have not been fully explored in the literature.

Therefore, we conducted a second review of all articles to generate a comprehensive list of measures (including structure, process, and outcome measures) that were reported by at least one included study. We then mapped identified measures to the previous framework. In doing so, we identified both gaps in existing literature in terms of measures that have yet to be reported on, and gaps in the previous framework in terms of measures that were reported in included studies but not captured in the framework. Based on these findings, we developed a refined Evaluation Framework for 23-hour COSS in which measures were classified into three categories: 1) framework measures that were reported on by at least one included study; 2) framework measures that were not reported on by any studies; and 3) identified measures that were not previously included in the generalized framework.

Results

The databases search identified 12,826 potentially relevant records, and two were added using citation searching. Following the removal of 2,135 duplicates, 10,693 studies were independently screened for eligibility at the title and abstract stage. Four hundred ninety full texts were assessed at the full text stage as potentially eligible. Most studies were excluded at the full text screening stage for not being the setting of interest (n = 458) or not a study (n = 12). In total, twenty studies were judged eligible for inclusion in this scoping review (Fig. 1).

Study Characteristics

Of the ten implementation/evaluation studies, several studies aimed to evaluate the rate or successful diversion of psychiatric inpatient admissions to a 23-hour psychiatric service (Browne, 2000; da Cruz et al., 2014; Francis et al., 2000; Gillig et al., 1989; Heyland & Johnson, 2017; Stamy et al., 2021); one study examined best practices in sobering centers (Smith-Bernardin, 2021). Other studies focused on 23-hour crisis services' impact on emergency department boarding (Claudius et al., 2024; Stamy et al., 2021), on continuity of primary care (Griswold et al., 2005), or on other service use (Goldsmith et al., 2023). Of the five effectiveness studies, two of the studies centered patient experiences (Ennis & Walker, 2021; Thomas et al., 2018), while other studies in this group explored clinical profiles to predict inpatient admission or of those who utilize the 23-hour space (San Thinn et al., 2015; Stefanis et al., 1999). One focused on developing an empirically grounded definition of continuity of care from the experiences of patients utilizing 23-hour services (Ware et al., 1999). Of the five studies that examined service availability at the population-level, three (Burns et al., 2023; Currier & Allen, 2003; Warren et al., 2016) explored various aspects of a range of crisis spaces that encompassed at least one example of a 23-hour space (behavioral health crisis care, psychiatric emergency services, sobering centers). Other studies in this group (Burns et al., 2024; Cantor et al., 2025) analyzed crisis service availability as it related to other factors (market, launch of 988). Across study types, there were three qualitative studies (Ennis & Walker, 2021; Thomas et al., 2018; Ware et al., 1999); the remaining quantitative studies comprised cross sectional (Smith-Bernardin, 2021; Burns et al., 2023; Burns et al., 2024; Currier & Allen, 2003; Warren et al., 2016), program evaluation (Claudius et al., 2024; Heyland & Johnson, 2017; Stefanis et al., 1999), retrospective cohort (Browne, 2000; Francis et al., 2000; Gillig et al., 1989; Ennis & Walker, 2021; San Thinn et al., 2015), prospective cohort (da Cruz et al., 2014; Goldsmith et al., 2023), pre- and post- (Stamy et al., 2021; Cantor et al., 2025), randomized control trial (Griswold et al., 2005) and economic evaluations (Stamy et al., 2021). The scoping review aimed to capture a global scope of 23-hour spaces; the vast majority of studies examined U.S.-based services, with three from the U.K. (Ennis & Walker, 2021; Stefanis et al., 1999; Goldsmith et al., 2023), and one from Brazil (da Cruz et al., 2014), Australia (Browne, 2000), and Singapore (San Thinn et al., 2015). See Tables 1a-1c.

Table 1
a. Characteristics of included implementation/evaluation studies

Study Reference	Study Aim(s)	Study Design and Duration	Country and Facilities (N)	Participants, N and Ages Served	Reason for Visit
Browne 2000	To evaluate the usefulness of a short stay or 23-hour ward within an ED for reducing inpatient admissions and cost savings	Retrospective cohort study; Descriptive comparative study Entire study: 4 year, 7 months (Site 1: 12 months; Site 2: 24 months)	Australia 2	1300 (Westmead hospital) 4977 (New Children's Hospital) Under 18	Presenting medical need (respiratory, gastroenteritis, convulsion, fever, occult bacteremia, viral illness, environmental problems, accidental ingestion, diabetic ketoacidosis); presenting psychosocial issue (crying/irritable infant, behavioral disorder, adolescent crisis, overdose); seeking surgical need (physical trauma, simple fracture, abdominal pain, wound infection, post-treatment); seeking emergency procedure (intravenous rehydration, antibiotic administration, bier's block, blood collection)
Claudius 2024	To describe the creation of an APEU and evaluate its impact on: Total LOS, pediatric ED LOS, psychiatric ED LOS, disposition, pediatric ED bed-hours lost to psychiatric boarding	Non-randomized experimental study; Program evaluation study; Descriptive comparative study Duration unknown	United States 2	5,438 (Intervention Hospital Pre = 1468, Post = 901) Non-intervention (pre = 2082, post = 987) Under 18	Reason for visit not reported
da Cruz 2014	To investigate the predictors of an increased number of visits among individuals diagnosed with ICD-10 Chapter F14 disorders (mental and behavioral disorders due to cocaine use) who attended a public psychiatric emergency unit in San Paulo state, Brazil, during 2011–2012	Prospective cohort study 24 months	Brazil 1	471 patients All ages	Presenting with ICD-10 Chapter F14 diagnoses of mental and behavioral disorders due to use of cocaine (crack or powder cocaine), including acute intoxication due to cocaine use, harmful use, dependence syndrome, withdrawal state, cocaine-induced psychotic disorders, other cocaine-related mental and behavioral disorders
Francis 2000	To provide information on characteristics of patients referred to the program, examine inpatient hospitalization rates and suicide rates before and after observation, and explore variables related to the need for hospitalization immediately after observation	Retrospective cohort study; before-and-after (pre-post) study 5 months	United States 1 Veterans Affairs Medical Center	92 18 and up	Exhibiting psychiatric symptoms including acute anxiety, mood instability, acute extrapyramidal symptoms, suicidal or homicidal ideation; intoxication from alcohol or drugs or acute withdrawal symptoms; to be in crisis; need further evaluation or stabilization
Gillig 1989	To assess the effect of a 24-hour holding/extended evaluation unit on hospitalization rate by comparing two similar psychiatric emergency services	Non-randomized experimental study; retrospective cohort study; descriptive comparative study 1 month	United States 2	435 (Cincinnati) 348 (Louisville) Ages not reported	Exhibiting suicidal and self-harm behaviors; use of alcohol and illegal substances; mental health difficulties; traumatic event
Goldsmith 2023	To understand who uses PDUs; examine changes to service use following a service user's first visit to a unit; assess the effects of the COVID-19 pandemic on service use post-discharge; assess equality of access to the units	Prospective cohort study; Retrospective cohort study 1 year, 2 months	United Kingdom 4	1176 Ages not reported	Experiencing behavioral health crisis (includes mental health and SUD diagnoses)
Note. APEU = Adolescent Psychiatric Emergency Unit; LoS = Length of Stay; ED = Emergency Department; ICD-10 = International Classification of Diseases; PDU = Psychiatric Decision Units; EmPATH = Emergency Psychiatric Assessment, Treatment and Healing.					

Study Reference	Study Aim(s)	Study Design and Duration	Country and Facilities (N)	Participants, N and Ages Served	Reason for Visit
Griswold 2005	To test whether case management vs usual care increases linkage to primary care after psychiatric crisis.	Randomized control trial 3 months	United States 1	101 18 and up	Experiencing psychiatric crisis/psychiatric emergency
Heyland 2017	To evaluate a model of crisis care that provides a community-based alternative to the ED for individuals in mental health crisis	Program evaluation study 2 months	United States 1	16 18 and up	Experiencing mental health crisis including suicidal/homicidal thoughts, panic attacks, situational crises, severe depressive symptoms, psychotic symptoms
Smith-Bernardin 2021	To describe current practices at sobering centers, best practices, and barriers to providing care to acutely intoxicated adults	Cross sectional study 4 months	United States 53 sobering centers screened; 37 eligibles; 26 included (responded)	n/a 18 and up	Exhibiting acute intoxication in public
Stamy 2021	To determine the impact the EmPATH unit had on ED revenue in the 6 months after its implementation as well as estimated ED annual revenue; the impact the EmPATH unit had on ED boarding time and LOS for psychiatric and nonpsychiatric patient populations	Before-and-after (pre-post) study; Economic evaluation 1 year, 5 months	United States 1 (ED and EmPATH unit)	23,231 (pre-EmPATH unit period) 23,336 (post-EmPATH unit period) 18 and up	Presenting mental health or substance use disorder
Note. APEU = Adolescent Psychiatric Emergency Unit; LoS = Length of Stay; ED = Emergency Department; ICD-10 = International Classification of Diseases; PDU = Psychiatric Decision Units; EmPATH = Emergency Psychiatric Assessment, Treatment and Healing.					

Table 1
b. Characteristics of included effectiveness studies

Study reference	Study aim(s)	Study design and duration	Country and Facilities (N)	Participants, N and Ages Served	Reason for Visit
Ennis 2022	To examine the experiences of individuals who found themselves in a state of suicidal crisis and used a CCIS	Retrospective cohort study; Qualitative research (field observation/interviews/focus groups) 11 months	United Kingdom 1	5 patients 18 and up	Presenting suicidal and self-harm behaviors, use of alcohol and illegal substances, mental health difficulties, traumatic event
San Thinn 2015	To determine what clinical profile(s) predicts subsequent in-patient hospitalization of patients admitted to a 23-hour observation unit	Retrospective cohort study 5 years	Singapore 1	2158	Reason for visit not reported
Stefanis 1999	to evaluate the EC to determine how effective it is at serving people in crisis	Cross sectional study; Program evaluation study 3 months	UK 1	763 patients 96.3%: 18–64; almost none aged 65+	Presenting psychosis (39.6%), bipolar disorder (7.7%), alcohol (25%) or drug (16.4%) problems, depressive and neurotic conditions (49.4%), personality disorder (17.7%)
Thomas 2018	To develop a better understanding of what patients with mental health and substance-use related disorders value in psychiatric care services and to compare experiences between EDs and a CMHC to inform county and state policy	Qualitative research (field observation/interviews/focus groups) No study duration reported	United States 2 (ED and CMHC)	27 patients Ages not reported	Utilizing psychiatric crisis services for mental health and substance-related disorders
Ware 1999	To use ethnography to develop a detailed, empirically grounded definition of continuity of care as the first phase in creating a standardized measure for mental health services research	Qualitative research (field observation/interviews/focus groups) 12 months	United States 3 facilities- two public community mental health centers (CMHCs) and one emergency psychiatric evaluation unit in Boston	16 recipients, 16 providers 18 and up	Presenting acute alcohol intoxication requiring monitoring until sober
Note. CCIS = Community Crisis Intervention Service; EC = Emergency Clinic; ED = Emergency Department; CMHC = Community Mental Health Center.					

Table 1
c. Characteristics of service availability/population health studies

Study reference	Study aim(s)	Study design and Duration	Country and Facilities (N)	Participants, N and Ages Served	Reason for Visit
Burns 2023	To examine the adoption of best practice BHCC services	Cross sectional study 1 month	United States 9,385 mental health treatment facilities were included in the analyses.	n/a All ages	n/a
Burns 2024	To identify and analyze the relationship between market factors and BHCC availability	Cross sectional study 5 years	United States Aggregated data on MH treatment facility (n = 9385) services to the county-level (n = 3142) to determine whether each county had at least 1 MH treatment facility offering comprehensive BHCC services	n/a All ages	n/a
Cantor 2025	To examine whether the launch of the 988 Suicide and Crisis Lifeline in July 2022 was associated with changes in the availability of crisis services offered by U.S. mental health treatment facilities	Before-and-after (pre-post) study 1 year, 7 months	United States 15,623 mental health treatment facilities	n/a all ages	n/a
Currier 2003	To examine PES structure, care processes, patient characteristics, and the relationship with medical emergency services	Cross sectional study; survey study 1 year	United States 51	n/a all ages	n/a
Warren 2016	To identify sobering centers in the United States and describe their characteristics, organizational structure, and practice patterns to initiate a common definition of sobering care	Cross sectional study 5 months	United States 27 potential centers identified; 11 surveyed; 9 met sobering center definition	n/a 18 and up	n/a
Note. BHCC = Behavioral Health Crisis Care; PES = Psychiatric Emergency Service.					

Unit Characteristics

Description

There was no uniform term to describe units in the included studies. These terms included EmPATH (Stamy et al., 2021), sobering centers (Warren et al., 2016; Smith-Bernardin, 2021), psychiatric emergency services (Currier & Allen, 2003), specialty crisis services (Cantor et al., 2025), comprehensive behavioral health crisis care facility (Burns et al., 2024), mental health treatment facilities (Burns et al., 2023); community mental health center (Thomas et al., 2018), walk-in emergency clinic (Stefanis et al., 1999), 23-hour observation unit (San Thinn et al., 2015), community crisis interventions service (Ennis et al., 2022), crisis respite program (Heyland & Johnson, 2017), urban comprehensive psychiatric emergency program (Griswold et al., 2005), psychiatric decision units/short-stay crisis units (Goldsmith et al., 2023), extended evaluation unit/emergency service holding area (Gillig et al., 1989), overnight (23 hours or less) observation and stabilization program (Francis et al., 2000), public psychiatric emergency unit (da Cruz et al., 2014), adolescent psychiatric emergency unit (Claudius et al., 2024), and short stay/observation ward (Browne, 2000).

Operating Hours

The majority of studies examined units that were reported as being available to clients/patients 24/7/365 (Browne, 2000; Claudius et al., 2024; Gillig et al., 1989; Griswold et al., 2005; Smith-Bernardin, 2021; Stamy et al., 2021; San Thinn et al., 2015; Stefanis et al., 1999; Thomas et al., 2018; Burns et al., 2024; Currier & Allen, 2003; Warren et al., 2016), however, for eight studies this information was not reported (da Cruz et al., 2014; Francis et al., 2000; Goldsmith et al., 2023; Heyland & Johnson, 2017; Ware et al., 1999; Burns et al., 2023; Cantor et al., 2025). Only one study (Ennis & Walker, 2021) examined a unit that provided limited hours.

Inclusion Criteria

Of the included implementation/evaluation and effectiveness studies, units demonstrated a range of admission criteria including patients presenting psychiatric symptoms and requiring short-term observation/stabilization/intervention/evaluation (Browne, 2000; Francis et al., 2000; San Thinn et al., 2015); able to complete age-appropriate daily activities (Claudius et al., 2024); medically cleared (Claudius et al., 2024); (youth) involuntary mental

health hold (Claudius et al., 2024); received ICD-10 diagnosis of mental and behavioral disorders due to cocaine use (da Cruz et al., 2014); utilization of the unit during the study period (da Cruz et al., 2014; Gillig et al., 1989; Goldsmith et al., 2023; Heyland & Johnson, 2017; Ennis & Walker, 2021; Stefanis et al., 1999;) adult with DSM-IV_R Axis 1 disorder (Griswold et al., 2005); presenting to ED with suicidal ideation/attempt or in crisis (Stamy et al., 2021); programs offering services to acutely intoxicated individuals in public spaces (Smith-Bernardin, 2021); individual/parent not wanting inpatient admission (San Thinn et al., 2015); early relapse of psychosis (San Thinn et al., 2015); medication side effects (San Thinn et al., 2015); waiting for family member for collaborative history/decision management (San Thinn et al., 2015); transferred from other hospitals who may not require inpatient admission (San Thinn et al., 2015); being age 21 years or older (Thomas et al., 2018), English speaking (Thomas et al., 2018), able and willing to provide written consent (Thomas et al., 2018), able to attend a focus group (Thomas et al., 2018), recommended for study participation by clinical or social work staff familiar with their diagnosis (Thomas et al., 2018), and receiving psychiatric crisis care at an ED or local community mental health center in the past year (Thomas et al., 2018).

Exclusion Criteria

Patient

Patients were excluded from admission in the units described in the studies if they were clearly in need of mental healthcare that exceeded 23 hours (e.g., suicidal) (Brown, 2000; Francis et al., 2000; Griswold et al., 2005; San Thinn et al., 2015); were pregnant (Claudius et al., 2024); were incarcerated (Claudius et al., 2024); illegibility of patient records (da Cruz et al., 2014); medically unstable (Francis et al., 2000, San Thinn et al., 2015; Thomas et al., 2018); requiring inpatient hospitalization (San Thinn et al., 2015); legally required to seek assessment (San Thinn et al., 2015); moderately to severely aggressive (San Thinn et al., 2015).

Facility

The authors of studies which described survey findings or findings from multiple types of units excluded facilities from their results for several reasons: if they only provided detoxification or rehabilitation services (Smith-Bernardin, 2021); if it was a private pay or exclusive facility not accessible to the general public (Smith-Bernardin, 2021, Warren et al., 2016); located in a jail or prison (Smith-Bernardin, 2021); residential treatment facilities and facilities owned by the U.S. Department of Veterans Affairs (Burns et al., 2023; Burns et al., 2024); facilities that did not agree to be publicly listed (Cantor et al., 2025); long-term housing (Warren et al., 2016); sobering centers outside of the U.S. (Warren et al., 2016); residential substance treatment facilities (Warren et al., 2016).

Length of Stay

The average length of stay ranged from 79 minutes (Stefanis et al., 1999) to 7 hours (Browne, 2000). Twelve of the included studies did not report this information or it was not applicable to their study.

Capacity

The majority of units in the included studies provided either chairs, recliners, or beds. Seven of the included studies (da Cruz et al., 2014; Griswold et al., 2005; Stefanis et al., 1999; Ware et al., 1999; Burns et al., 2023; Burns et al., 2024; Cantor et al., 2025) did not describe unit capacity or provide any physical description of the unit.

Services Provided

Across included studies, the most common services provided were medication management (Claudius et al., 2024; da Cruz et al., 2014; Goldsmith et al., 2023; Griswold et al., 2005; Heyland & Johnson, 2017; Smith-Bernardin, 2021; Thomas et al., 2018; Ware et al., 1999; Burns et al., 2023; Currier & Allen, 2003; Warren et al., 2016), stabilization and/or observation (Francis et al., 2000; Gillig et al., 1989; Goldsmith et al., 2023; Ennis & Walker, 2021; Thomas et al., 2018; Burns et al., 2023; Burns et al., 2024; Warren et al., 2016), referral/linkage to other services (Francis et al., 2000; Griswold et al., 2005; Smith-Bernardi et al., 2021; Ennis & Walker, 2021; Thomas et al., 2018; Currier & Allen, 2003; Warren et al., 2016), psychiatric evaluation and/or treatment (Francis et al., 2000; Griswold et al., 2005; Ennis & Walker, 2021; Thomas et al., 2018), peer support (Griswold et al., 2005; Heyland & Johnson, 2017; Burns et al., 2023; Burns et al., 2024), individual/family therapy/counseling/intake (Claudius et al., 2024; Heyland & Johnson, 2017; Smith-Bernardin, 2021; Currier & Allen, 2003), case management/discharge planning (Claudius et al., 2024; Francis et al., 2000; Currier & Allen, 2003), social services assistance (Currier & Allen, 2003; Warren et al., 2016), patient education/skill-building (Griswold et al., 2005; Heyland et al., 2017), follow-up (Griswold et al., 2005; Currier & Allen, 2003), de-escalation strategies (Heyland & Johnson, 2017; Ennis & Walker, 2021), basic medical assessment and/or clearance (Heyland & Johnson, 2017; Currier & Allen, 2003), emergency psychiatric walk-in services (Burns et al., 2023; Burns et al., 2024), crisis intervention teams (Burns et al., 2023; Burns et al., 2024); suicide prevention (Burns et al., 2023; Burns et al., 2024), detoxification for alcohol/opiates (Thomas et al., 2018), transportation (Smith-Bernardi et al., 2021), withdrawal management (Smith-Bernardin, 2021), wound care (Smith-Bernardin, 2021), involuntary commitment (Thomas et al., 2018), shared decision-making (Griswold et al., 2005); motivational interviewing (Smith-Bernardin, 2021), psychiatric boarding (Claudius et al., 2024), SUD screening (Smith-Bernardin, 2021), inpatient admission when needed (Francis et al., 2000), and rapid tranquilization (Gillig et al., 1989).

Referral Pathway and Requirement

Units received referral most commonly from walk-ins (Claudius et al., 2024; da Cruz et al., 2014; Heyland & Johnson, 2017; Smith-Bernardin, 2021; Stamy et al., 2021; Ennis & Walker, 2021; San Thinn et al., 2015; Stefanis et al., 1999; Burns et al., 2024), followed by law enforcement (Claudius et al., 2024; Smith-Bernardin, 2021; Ennis & Walker, 2021; Stefanis et al., 1999; Warren et al., 2016), EMS dropoff (Smith-Bernardin, 2021; Ennis & Walker, 2021; Thomas et al., 2018; Warren et al., 2016), and mobile crisis transport (Claudius et al., 2024; Goldsmith et al., 2023; Smith-Bernardin, 2021; Ennis & Walker, 2021; Burns et al., 2024). Only two of the included studies reported that referrals (e.g., emergency room/department, outpatient psychiatric clinic) to the unit were required (Francis et al., 2000; Stamy et al., 2021).

Staffing

Units across the reviewed studies were primarily operated by nursing (Browne, 2000; Claudius et al., 2024; Francis et al., 2000; Goldsmith et al., 2023; Heyland & Johnson, 2017; Smith-Bernardin, 2021; Stamy et al., 2021; Stefanis et al., 1999; Thomas et al., 2018; Ware et al., 1999; Burns et al., 2023; Currier & Allen, 2003; Warren et al., 2016), psychiatry (Claudius et al., 2024; da Cruz et al., 2014; Francis et al., 2000; Goldsmith et al., 2023; Griswold et al., 2005; Heyland & Johnson, 2017; Stamy et al., 2021; Stefanis et al., 1999; Ware et al., 1999; Burns et al., 2023; Burns et al., 2024; Currier & Allen, 2003), other mental health provider (Browne, 2000; Claudius et al., 2024; da Cruz et al., 2014; Goldsmith et al., 2023; Griswold et al., 2005; Smith-Bernardin, 2021; Thomas et al., 2018; Ware et al., 1999; Burns et al., 2023; Burns et al., 2024; Currier & Allen, 2003; Warren et al., 2016), social work (Claudius et al., 2024; Griswold et al., 2005; Heyland & Johnson, 2017; Smith-Bernardin, 2021; Stamy et al., 2021; San Thinn et al., 2015; Thomas et al., 2018; Burns et al., 2023; Currier & Allen, 2003), licensed counselor/therapist (Claudius et al., 2024; Gillig et al., 1989; Heyland & Johnson, 2017; Smith-Bernardin, 2021; San Thinn et al., 2015; Burns et al., 2023; Currier & Allen, 2003) followed by other medical providers/officers (Goldsmith et al., 2023; Smith-Bernardin, 2021; Stamy et al., 2021; San Thinn et al., 2015; Thomas et al., 2018; Burns et al., 2023), and peer support/community health workers (Heyland & Johnson, 2017; Smith-Bernardin, 2021; Burns et al., 2023; Burns et al., 2024).

Payment and Funding Models

Payment and funding models varied among included studies. In most cases, clients were not billed directly for services (Browne, 2000; deCruz et al., 2014; Francis et al., 2000; Goldsmith et al., 2023; Heyland & Johnson, 2017; Smith-Bernardin, 2021; Ennis & Walker, 2021; Warren et al., 2016), followed by public insurance (Medicaid/Medicare) (Heyland & Johnson, 2017; Smith-Bernardin, 2021; Stamy et al., 2021; Burns et al., 2023; Cantor et al., 2025; Currier & Allen, 2023), private insurance (Browne, 2000; Stamy et al., 2021; Burns et al., 2023; Cantor et al., 2025; Currier & Allen, 2023), public/government-funded (Smith-Bernardin, 2021; Francis et al., 2000; Browne, 2000; Warren et al., 2016), grant-funded (Burns et al., 2023; Heyland & Johnson, 2017; Warren et al., 2016), ACA marketplace health insurance (Stamy et al., 2021; Burns et al., 2023), hospital/healthcare system/police/community program-funded (Smith-Bernardin, 2021; Warren et al., 2016), self-pay/sliding-scale (Burns et al., 2023), and payment assistance (Burns et al., 2023). Eight of the included studies did not report payment models for the units examined. See Tables 2a-c.

Table 2
a. Characteristics of 23-hour units examined in included implementation/evaluation studies

Study Reference	Unit Description	24/7/365	Inclusion Criteria	Exclusion Criteria	Average LoS	Capacity &/or Physical Description of Space
Browne 2000	Short Stay or Observation Ward (SSW) Model	Yes	Children whose medical care/ observation is expected to last longer than 4 hours but less than 23 hours are admitted; Children with a condition, which responds to rapid emergency department stabilization or simple intervention and require a short period of extended observation before discharge, are eligible for admission to the SSW	Need longer than 23 hour care; may need ICU, requires complicated treatment; continuous monitoring	17.5 hours (Westmead Hospital); 20.5 hours (New Children's Hospital, NCH)	4-beds unit in Westmead; 8-bed unit in NCH; Both co-located within ER.
Claudius 2024	Adolescent Psychiatric Emergency Unit (APEU)	Yes	Ages 12–17 and able to complete age-appropriate activities of daily living, medically cleared, and on an involuntary mental health hold	Pregnancy; Incarceration	Not reported	Beds available Includes purpose-built locked psychiatric unit; ligature-risk prevention; specialized isolation rooms with reduced self-harm hazards; beds attached to floor
da Cruz 2014	Public Psychiatric Emergency Unit	Yes	Attended the public psychiatric emergency unit between January 2011 and December 2012, received a principal diagnosis included in ICD-10 Chapter F14 (mental and behavioral disorders due to cocaine use) at the psychiatric consultation	Diagnosed under ICD-10 Chapter F19 (mental and behavioral disorders due to multiple drug use or other psychoactive substances); records with illegible handwriting, containing no information or with duplicate/incomplete/illegible names	Not reported	Not reported
Francis 2000	Overnight (23 hours or less) Observation and Stabilization Program	Not known	Exhibiting psychiatric symptoms (e.g., acute anxiety, mood instability, acute extrapyramidal symptoms, suicidal or homicidal ideation, intoxication from alcohol or drugs, or acute withdrawal symptoms), be in crisis, need further evaluation or stabilization, be judged inappropriate for a less restrictive treatment option	Medically unstable, judged inappropriate for outpatient care within 24 hours (e.g., acutely psychotic)	Approximately 23 hours	Beds available Short-term stabilization area integrated into the hospital's emergency services
Gillig 1989	Extended Evaluation Unit, Emergency Service Holding Area	Yes	Age 18+ utilizing facility during data collection time period	Not reported	Not reported	One site had a holding area; the other did not.
Goldsmith 2023	Psychiatric Decision Units (PDUs)/Short-Stay Crisis Unit	Not known	Primary cohort includes all individuals at the four study sites visiting for the first time between 9/1/2020 and 2/28/2021	Not reported	Not reported	Chairs /recliners available
Griswold 2005	Urban Comprehensive Psychiatric Emergency	Yes	DSM-IV-R Axis 1 disorder required, 18 or older	Unstable, actively suicidal/homicidal	Not reported	Not reported

Note. SSW = Short Stay or Observation Ward; ICU = Intensive Care Unit; NCH = New Children's Hospital; ICD = International Classification of Diseases; DSM = Diagnostic and Statistical Manual of Mental Disorders; EmPATH = Emergency Psychiatric Assessment, Treatment and Healing; ED = Emergency Department.

Study Reference	Unit Description	24/7/365	Inclusion Criteria	Exclusion Criteria	Average LoS	Capacity &/or Physical Description of Space
	Program (CPEP)					
Heyland 2017	Crisis Respite Program (Living Room Crisis model)	Not known	Adults 18 and older presenting to center from May 1 through June 26, 2015	Not reported	2 hours, 14 minutes	Chairs/ recliners available Home like space with comfortable furniture, art, carpeted floors, soft lighting, non-clinical, no medical equipment, and no security guard
Smith-Bernardin 2021	Sobering centers	Yes	Programs offering services to those acutely intoxicated in public; short-term (2–12 hr) stays for recovery	Center provides only detoxification (social or medical) or rehabilitation services; private pay or exclusive facility not accessible to the general public; and center is located within a jail or prison facility	9 hours	Maximum capacity ranged from 3 up to 84 clients Beds, benches and chairs/recliners available Variety of furniture including beds, cots, reclining chairs, and mattresses; Non-hospital observation units designed for short-term intoxication recovery
Stamy 2021	EmPATH unit	Yes	All patients aged > 18 who presented to the ED between Dec 2017-May 2018 and Dec 2018-May 2019	Not reported	Rate given was for ED	Chairs/recliners available
Note. SSW = Short Stay or Observation Ward; ICU = Intensive Care Unit; NCH = New Children's Hospital; ICD = International Classification of Diseases; DSM = Diagnostic and Statistical Manual of Mental Disorders; EmPATH = Emergency Psychiatric Assessment, Treatment and Healing; ED = Emergency Department.						

Table 2
b. Characteristics of 23-hour units examined in included implementation/evaluation studies

Study Reference	Services Provided	Referral Pathway and Requirement	Staffing	Payment Model
Browne 2000	No services reported Unknown if meds are provided or prescribed	No pathways reported Not required	Nursing; other medical provider	Private insurance; free universal healthcare; SSW funded through re-allocation of resources from inpatient areas to the emergency department. little emergency department funding is recouped from private patients
Claudius 2024	Medication initiation and management, daily individual therapy (approximately 30 minutes with psychiatric fellow), recreational therapy, case management and discharge planning, psychiatric boarding in a secure, ligature-safe unit Meds provided and prescribed	Law enforcement drop off; EMS drop off; walk-ins; mobile crisis transport Not required	Nursing; psychiatry; social worker; therapist; other mental health provider	Not reported
da Cruz 2014	No services reported Meds are provided; unknown if meds are prescribed	Walk-ins Not required	Psychiatry; other mental health provider	No fee (because no charge); service provided freely on demand
Francis 2000	Psychiatric evaluation (history, physical exam, laboratory testing), Stabilization during observation period, Development of a plan for care the next morning, Referral to outpatient programs (e.g., VA mental health clinic, alcohol and drug abuse treatment program, community substance abuse treatment, homeless shelters), Inpatient admission when clinically indicated (12%)	Referred from the VA medical center ED Required	Nursing; psychiatry	No fee (because no charge); VA services are federally funded and not structured as private or marketplace insurance billing
Gillig 1989	Extended evaluation and observation; assessment; "rapid tranquilization" Unknown if meds are provided or prescribed	No pathways reported Unknown	Therapist	Not reported; assumed private/public insurance since part of existing PES
Goldsmith 2023	Acute stabilization, assessment Unknown if meds provided; meds prescribed	Street Triage; ED; Community Resolution & Home Treatment Team; Crisis Mental Health Team; Approved Mental Health Official Unknown	Nursing; psychiatry; other mental health provider	No fee (because no charge); Publicly funded through NHS mental health trusts (presumably free)
Griswold 2005	Shared decision-making, patient education reinforcement, follow-up, peer connections, psychiatric assessment/management, targeted therapeutic approaches, linkage to community mental health; care management focuses on linkage to primary care Meds provided; unknown if meds prescribed	No pathways reported Unknown	Psychiatry; social worker; other mental health provider	Not reported
Heyland 2017	Coping skills, resources/referrals, problem solving, peer support, de-escalation strategies, therapist intake, nurse basic health assessment, medication assessment Unknown if meds provided or prescribed	Walk-ins Unknown if required	Nursing; psychiatry; social worker; peer support/ community health worker; licensed counselor; therapist	Public insurance (Medicaid/Medicare); no fee (because no charge); service provided free of charge through grants from local division of mental health, but Medicaid can also be billed; average cost per visit estimated at \$269
Note. VA = Veterans Affairs; ED = Emergency Department; PES = Psychiatric Emergency Services; NHS = National Health Service; SUD = Substance Use Disorder; EMS = Emergency Medical Services; ACA = Affordable Care Act.				

Study Reference	Services Provided	Referral Pathway and Requirement	Staffing	Payment Model
Smith-Bernardin 2021	Referrals, motivational interviewing, screening for SUD, transportation, counseling, withdrawal management, wound care Meds provided but not prescribed	Law enforcement drop off; EMS drop off; walk-ins; mobile crisis transport Not required	Nursing; other medical provider; social worker; peer support/community health worker; licensed counselor; other mental health provider	Public insurance (Medicaid/Medicare); no fee (because no charge); multiple combinations of sources including public (city, county, state), hospital or police depts, community programs
Stamy 2021	No services reported Unknown if meds provided or prescribed	Walk-ins; ED; outpatient psychiatric clinic Required	Nursing; psychiatry; social worker; other medical provider	Private insurance; ACA marketplace health insurance; public insurance (Medicaid/Medicare)
Note. VA = Veterans Affairs; ED = Emergency Department; PES = Psychiatric Emergency Services; NHS = National Health Service; SUD = Substance Use Disorder; EMS = Emergency Medical Services; ACA = Affordable Care Act.				

Table 2
c. Characteristics of 23-hour units examined in included effectiveness studies

Study Reference	Unit Description	24/7/365	Inclusion Criteria	Exclusion Criteria	Average LoS	Capacity &/or Physical Description of Space
Ennis 2022	Community Crisis Intervention Service (CCIS)	No	> 18 yrs, service user of CCIS	Not reported	90 minutes to 4 hours	A non-clinical environment (individual rooms wherein clients can engage in de-escalation interventions)
San Thinn 2015	23-Hour Observation Unit	Yes	Presenting a stress reaction, mild to moderate depression with minimal suicide risk and not wanting inpatient admission, early relapse of psychosis, medication side effects, require waiting for another family member for collaborative history or decision on management, child and adolescent cases in which parents do not want inpatient admission, and/or transferred from other hospitals who may not require inpatient admission	Moderately-severely aggressive or suicidal; charged in court and remanded for forensic assessment and/ or requiring admission to an inpatient forensic-secure setting; family strongly refuses to be observed in the observation unit; with delirium or in need of urgent medical attention	Not reported	6-bed unit
Stefanis 1999	Maudsley Emergency Clinic (EC)	Yes	Patients seen during study period	Not reported	79 minutes	Not reported
Thomas 2018	WakeBrook Community Mental Health Center	Yes	Being age 21 years or older, English speaking, able and willing to provide written consent, able to attend a focus group, recommended for study participation by clinical or social work staff familiar with their diagnosis, and receiving psychiatric crisis care at an ED or WakeBrook in the past year	Needs acute medical care	Not reported	Beds available
Ware 1999	n/a	Not known	Not reported	Not reported	Not reported	Not reported
Note. ED = Emergency Department						

Table 2
d. Characteristics of 23-hour units examined in included effectiveness studies

Study Reference	Services Provided	Referral Pathway and Requirement	Staffing	Payment Model
Ennis 2022	(1) An initial brief assessment and triage (including a needs assessment and risk assessment), (2) de-escalation through evidence-based STORM (Skills-based Training on Risk Management) or ASIST (Applied Suicide Intervention Skills Training) interventions, (3) stabilization through identification of further supports and interventions to target the underlying problems, and (4) onward signposting to sources of help to address the underlying issues Unknown if meds provided or prescribed	Law enforcement drop off; EMS drop off; walk-ins; mobile crisis transport Not required	Not reported	Free universal healthcare; Ireland - universal coverage
San Thinn 2015	None reported	Walk-ins Not required	Medical officer; medical social worker; counselor	Not reported
Stefanis 1999	No services reported Unknown if meds provided or prescribed	Law enforcement drop off; walk-ins; general practitioners; community mental health teams; EC follow-up Not required	Nursing; psychiatry	Not reported
Thomas 2018	Psychiatric crisis stabilization, assessment services, medication management, involuntary commitment, referrals, detoxication services Meds provided and prescribed	EMS drop off Unknown	Nursing; other medical provider; social worker; other mental health provider	Not reported
Ware 1999	No services reported Meds provided and prescribed	No pathways reported Unknown	Nursing; psychiatry; therapist; other mental health provider	Not reported
Note. EMS = Emergency Medical Services; EC = Emergency Clinic.				

Table 2

e. Characteristics of 23-hour units examined in included service availability/population health studies

Study Reference	Unit Description	24/7/365	Inclusion Criteria	Exclusion Criteria	Average LoS	Capacity &/or Physical Description of Space
Burns 2023	Mental Health Treatment Facilities	Not reported	Behavioral Health Crisis Care services in SAMHSA Locator tool	Residential treatment facilities and facilities owned by the U.S. Department of Veterans Affairs	n/a	Not reported
Burns 2024	Comprehensive Behavioral Health Crisis Care (BHCC) facility	Yes	MH treatment facilities listed from SAMHSA's Behavioral Health Treatment Services Locator tool; aggregated at county level	Residential treatment facilities, facilities owned by the U.S. Department of Veterans Affairs, and facilities outside of the U.S.	n/a	Not reported
Cantor 2025	Specialty Crisis Services	Not reported	Facilities that were licensed US mental health treatment facilities, listed in the SAMHSA Behavioral Health Treatment Locator, and completed the National Substance Use and Mental Health Services Survey Facilities observed between November 2021 and June 2023	Facilities that did not agree to be publicly listed	Not reported	Not reported
Currier 2003	Psychiatric Emergency Services (PES)	Yes	Medical directors of PES facilities who were members of AAEP and had administrative responsibility for a PES site	Not reported	9 hours	Beds available
Warren 2016	Sobering Center	Yes	Facilities operating as sobering centers where acutely intoxicated individuals can safely recover and that function as alternatives to jail or emergency departments	Long-term housing (> 2 nights), detoxification programs, residential substance treatment facilities, private-pay centers not affiliated with sobering services, and centers outside the U.S.	LoS listed for one site only – 7 hours; max length of stay for others listed as 6–10, 12, 12, 12, 23	Beds, benches and chairs/recliners available

Note. SAMHSA = Substance Abuse and Mental Health Services Administration; PES = Psychiatric Emergency Services; AAEP = American Association for Emergency Psychiatry; LoS = Length of Stay.

Table 2
f. Characteristics of 23-hour units examined in included service availability/population health studies

Study Reference	Services Provided	Referral Pathway and Requirement	Staffing	Payment Model
Burns 2023	Emergency psychiatric walk-in services, crisis intervention teams, onsite stabilization, mobile or offsite crisis responses, onsite stabilization, mobile or offsite crisis responses, suicide prevention, and peer support specialists Unknown if meds provided Meds prescribed	No pathways reported Unknown	Nursing; psychiatry; other medical provider; social worker; peer support/ community health worker; licensed counselor; therapist ; other mental health provider	Private insurance; ACA marketplace health insurance; public insurance (Medicaid/ Medicare); describes what payment methods accepted (Medicaid, self-pay, private insurance, Medicare) and payment options (sliding-scale fee, payment assistance) and any grant-funding received
Burns 2024	Suicide prevention services, crisis intervention teams, emergency walk-in services, onsite crisis stabilization, peer support services, mobile/offsite services Unknown if meds provided or prescribed	Walk-ins; mobile crisis transport; crisis intervention teams Not required	Psychiatry; peer support/community health worker; other mental health provider	Not reported
Cantor 2025	No services reported Unknown if meds provided or prescribed	No pathways reported Unknown	Not reported	Private insurance; public insurance (Medicaid/ Medicare); measures included ownership (public, for-profit, or not-for-profit ownership); whether the facility accepts Medicaid; whether the facility accepts private insurance
Currier 2003	Medical evaluation/medical clearance, psychiatric assessment, pharmacologic treatment, family intervention, counseling/therapy, follow-up visits, referrals/aftercare planning, psychiatric consultation to EDs, and sometimes social work services/financial disability applications Meds provided and prescribed	No pathways reported Unknown	Nursing; psychiatry; social worker; licensed counselor; other mental health provider	Private insurance; public insurance (Medicaid/ Medicare)
Warren 2016	Short-term sobering center care providing supervised monitoring and stabilization for acutely intoxicated individuals with referral to treatment or social services as needed Meds provided and prescribed	Law enforcement drop off; EMS drop off; street outreach teams; EDs; homeless van services; other van services Unknown	Nursing; other mental health provider	No fee (because no charge); public funding: municipal support, grants, and healthcare system funding
Note. ACA = Affordable Care Act; ED = Emergency Department; EMS = Emergency Medical Services.				

Study Outcomes

Figure 2 presents our refined Evaluation Framework for 23-hour COSS. Framework measures that were reported on by at least one included study are shown in green (+), framework measures that were not reported on by any studies are shown in red (-), and identified measures that were not previously included in the generalized framework are shown in blue (*). Within each dimension, at least three types of framework measures were reflected in the included studies, and at least one knowledge gap (i.e., measure of interest that was not reported by any studies) was identified. However, new types of measures that were not previously reflected by the framework were identified only in the system structure and implementation dimensions.

System structure. System structure measures reflect the systems and resources of a healthcare organization. Three structural measures were reported by included studies: team size & composition, cost-effectiveness, and establishment of key partnerships. No studies reported measures of team member well-being, training, or education. Three new structural measures were identified and added to the framework: payment models/methods accepted (e.g., Medicaid, sliding scale payments), physical characteristics of treatment space (e.g., living room design, private rooms), and organizational characteristics of the facility (e.g., nonprofit vs. for-profit, licensing types).

System implementation. System implementation measures reflect the types of services offered by a healthcare organization and their capacity. Three implementation measures were reported by included studies: referral pathways to crisis services (e.g., walk-in, brought in by police, brought in by EMS, etc.), availability of 23-hour COSS (i.e., hours of facility operation), and the use of suicide screening tools. No studies reported on public

awareness of crisis services or the availability of police co-response. Three new implementation measures were identified and added to the framework: use of other behavioral health screening tools/assessments (e.g., PHQ, GAD), specific services/interventions available (e.g., safety planning, brief interventions), and onsite medication management.

System utilization. System utilization measures reflect the reach of a healthcare organization, including the size and characteristics of the population served. Utilization measures were reported by almost all included studies, with the only exceptions being those studies focused on organizational characteristics and service availability (Burns, 2023; Burns, 2024; Cantor, 2025). Because utilization measures vary widely in how they are operationalized, measures within this dimension are further divided into three sub-categories reflecting crisis system utilization, patient information, and referrals. All crisis system utilization measures (e.g., the number of individuals who visited the 23-hour COSS, response times, length of encounter, and follow-ups completed) and patient information measures (e.g., demographics, baseline status, disposition, experience, satisfaction) were reported by at least one included study. As for referrals, some studies reported referrals made to partner organizations (e.g., mental health or substance use treatment, social resources, etc.), but no studies reported the actual use of referrals.

Social outcomes. Social outcome measures reflect changes in an individual's social needs, which are known to influence health outcomes. In our Evaluation Framework for 23-hour COSS, social outcome measures also include preventable experiences that can have a negative social impact on individuals. Four social outcome measures were reported by included studies: housing status, employment, insurance, and transportation access. No studies have reported on other social drivers such as social support, food security, safety, or family reunification. As for preventable experiences, criminal legal involvement was reported on, but other types of preventable experiences (e.g., child services involvement, exposure to stigma, traumatic events) were not reported on.

Health outcomes. Health outcome measures reflect health behaviors, status, functioning, and quality of life. In our Evaluation Framework for 23-hour COSS, health outcome measures are sub-divided into three categories: preventable service utilization, short-term health outcomes, and long-term health outcomes. Measures of preventable services utilization reflect the use of high-cost, potentially avoidable healthcare services, which are often used as proxy measures of health status. ED visits and inpatient hospitalizations were reported in included studies, but no studies examined the role of 23-COSS on 911 emergency calls. While all three short-term health outcomes (acute stabilization, mental health symptoms, and substance use behaviors) were reported on, no long-term health outcomes (overall well-being, suicide rates, overdose rates) were reported on.

Discussion

Our goal in conducting this review was to explore the literature focused on 23-hour COSS. To that end, this scoping review synthesizes findings from 20 studies describing the availability of crisis stabilization facilities and the implementation and effectiveness of 23-hour COSS. These studies reflect international experiences and a wide range of implementation contexts, highlighting the range of approaches which have been utilized to meet the needs of individuals who experience a mental health crisis. Our review also included three studies that examined the availability of crisis stabilization facilities across the US, which included but were not limited to 23-hour COSS.

The 23-hour COSS described in this review represents one part of what are often complex and fragmented local crisis response systems (SAMHSA, 2025a). The diversity of these unique contexts and the historical approaches to mental health crisis treatment are partly responsible for the range of terminology used to identify these short-term units. In addition, recent guidance from Centers for Medicaid Services (CMS) outlining recommendations for approaches to funding COSS units (SAMHSA, 2025b) describes the patchwork of funding available to sustain crisis services, including 23-hour spaces. These funding strategies often contain specific parameters related to staffing, hours of operation, or length of stay, and the use of such diverse funding streams means that program leadership are frequently tasked with meeting multiple sets of demands in their local environment to maintain service availability. Further, international contexts have a separate set of regulatory and environmental considerations, leading them to implement short-term COSS according to a different set of requirements.

To facilitate research on the 23-hour COSS model, consistency in terminology is needed. In future iterations of national surveys and other research efforts focused on mental health services, it would be beneficial to include items that capture facility hours of operation and the intended length of stay for individuals in crisis, as this would help distinguish 23-hour COSS from other short-term crisis stabilization facilities. We found that a number of facilities which were designed to hold patients for 24 hours or less frequently held them for longer, a finding which highlights the complexity of crisis care, including lack of availability of facilities which could immediately accept a patient being transferred.

The adapted evaluation framework that we developed based on the findings of this scoping review expands previous work by Burns et al. (2025) and Balfour et al. (2016), providing a structured approach to measuring crisis system functionality. While the identified studies provide helpful context about 23-hour COSS implementation and suggest that this model may positively impact measures of preventable utilization, overall, little is known about how implementation determinants may influence 23-hour COSS and whether this model is effective for improving other outcomes across a range of community settings. Below, we use the adapted framework to organize our discussion of key gaps identified in the literature and next steps for future research.

System-level outcomes: System structure, System implementation, System utilization

The studies included in our scoping review illustrate that the structure of 23-hour COSS represents a distinct treatment modality, with facilities often working to be identified as less “hospital-like” and more relaxed. While some patients may ultimately require inpatient hospitalization, 23-hour COSS typically offer an alternative to hospitalization and not necessarily a pathway towards it. EmPATH units, which were found to have a positive impact on ED revenue and boarding times (Stamy et al., 2021) as well as hospital admissions (Kim, 2022), define this space. More recent papers indicate that these approaches are expanding and gaining popularity. Other recent reviews have looked at the range of programs implemented and begun to offer synthesis of the evidence which can guide policy, particularly looking at the hospital-based and hospital-developed programs (Hudson, Bowman & Randall, 2025) and treatment options that included longer stays (Anderson 2022). Short-term crisis stabilization units have been employed in diverse settings for many years, often referred to as Psychiatric Emergency Services (Currier & Allen, 2003). Currier and Allen (2003) explain that these units were infrequently operated during the era of institutionalization for mental illness but became much more common by the 1990s when individuals with SMI were treated in community settings.

Our scoping review also identified numerous system structure and implementation measures that were not previously identified as part of the Patient-Centered Outcomes Framework. On one hand, this broadens the scope of measures for consideration in evaluations focused on 23-hour COSS and other types of crisis services. On the other hand, this also illustrates the discrepancy between the types of measures that stakeholders are most interested in and the types of measures that have actually been reported in the literature. For example, partnerships among mental health agencies are key, and studies explored police partnerships and referral pathways (e.g., walk-ins allowed vs. referral required from EMS, police, or primary care). In addition, no studies reported measures of team member well-being or details about how team members were trained or educational requirements. Considering that burnout among crisis care providers is a common threat to recruitment and retention of staff; these are important areas for future 23-hour COSS research to explore. In terms of broadening the framework, the type of payment models/methods accepted also emerged as an important structural measure. When establishing 23-hour COSS, it is important to consider how reimbursement mechanisms (e.g., Medicaid, private insurance) and payment models (e.g., sliding scale, payment assistance) can be integrated into the business model and the role that the social environment may play on the sustainability of the selected model.

Social outcomes: Social needs and preventable experiences

Given that behavioral health crisis care services such as those provided by 23-hour COSS may serve as an important entry point to both social and health services, clients of 23-hour COSS may present with complex social needs and could benefit from referrals to follow-up services that address these needs. There is increasing awareness that just providing immediate crisis stabilization without addressing underlying social needs may not adequately stabilize clients, contributing to the “revolving door” challenge of crisis services. As noted above, while some studies illustrate that 23-hour COSS may make referrals to partner organizations that can address social needs, no studies reported the actual use of referrals, so it remains unclear how effective 23-hour COSS are in linking individuals to follow-up services and ultimately addressing social needs. Hence, future research might further explore the role of 23-hour COSS in addressing social needs by tracking both actual utilization of follow-up services aimed at addressing these needs and changes in social outcomes measures associated with receipt of such services.

Health outcomes: Short-term, long-term, and preventable service utilization

Health outcome measures represent the ultimate, though distal, goals of services offered by 23-hour COSS. Measures of preventable utilization are often used as a proxy for short-term health outcomes and included high-cost services such as ED visits and inpatient hospitalizations. These measures were frequently focused on as a way of demonstrating the financial viability of 23-hour COSS in offset other healthcare related expenses. Measuring health outcomes is often a challenge for all types of health services and community health improvement initiatives but may be especially difficult in the context of crisis services given the loss of clients to follow-up. Of note, while all three short-term health outcomes (acute stabilization, mental health symptoms, and substance use behaviors) were reported on, no long-term health outcomes (overall well-being, suicide rates, overdose rates) were reported on. Although it may be challenging to evaluate longer term outcomes, these measures reflect a set of outcomes that are of central importance to key stakeholders. Furthermore, these outcomes also provide a sense of how effectively 23-hour COSS are operating within the broader ecosystem of behavioral health crisis and preventive services. To facilitate future research on health outcomes, additional data infrastructure is needed and efforts to create learning networks focused on crisis care services as needed. For example, Arizona is one model US state which has built a crisis system dashboard and is building integrated data infrastructure to capture health outcomes (Tomovic et al., 2024; Arizona Complete Health, n.d.). By building similar systems that track and integrate data across 23-hour COSS and other crisis stabilization models, we can learn more about how these services are impacting clients and inform efforts to increase access to the most effective crisis stabilization models.

Limitations

This scoping review is not without limitations. First, the search was restricted to English-language publications that limits generalizability to the global context (Walpole, 2019; Wang et al., 2015). Second and related, most included studies examined US-based services, limiting the degree to which findings can inform global crisis system development despite the review's international scope. Third, consistent with scoping review methodology (Peters et al., 2022), formal quality appraisal of included studies was not conducted; as a result, findings from methodologically weaker studies carry equal weight to those from more rigorous designs. Fourth, we did not formally search the grey literature (e.g., government reports, program evaluations, and policy documents), prioritizing peer-reviewed and indexed research. Although some grey literature was screened for eligibility when identified through our database searches, this approach likely omitted important practice-based evidence in a field heavily shaped by

policy and implementation (Peters et al., 2022). Fifth, although 20 studies were included, considerable heterogeneity in terminology, study designs, populations, and outcomes precluded direct comparisons across programs and settings. Finally, the post-hoc mapping of extracted outcomes onto the Burns et al. (2025) patient-centered outcomes framework, while theoretically grounded, was not pre-specified and may reflect analytical decisions made after data were examined.

Conclusion

Overall, there is increasing interest in finding alternatives to the ED for mental health crisis stabilization, with the goal of preventing avoidable trauma and frustration; and the 23-hour COSS is one model communities in a range of diverse settings have implemented to provide a place for individuals in crisis to go. The existing literature has explored a range of outcomes, but the evidence on each individual outcome is often limited to one or few sites. It is not surprising that reported measures are often descriptive, and proxy measures are frequently used, given the lack of data infrastructure available for tracking 23-hour COSS clients and their longer-term outcomes. However, the public health community has a responsibility to measure indicators that capture the health and quality of life outcomes that matter most to the patients and community members being served. In addition, more comprehensive, public funding strategies for mental health crisis services would facilitate comparing evidence across settings.

Declarations

Funding

No funding was received for conducting this study.

Author Contribution

Conceptualization and design: SC, BS, RO, ABB, HK, AB; Literature search: AB; Screening: SC, BO, RO, ABB, SR, GW, AK, GJ; Data Analysis and Interpretation: SC, ABB, BS, RO; All authors participated in the drafting of the manuscript and provided revisions to the final work.

References

1. Anderson, K., Goldsmith, L. P., Lomani, J., Ali, Z., Clarke, G., Crowe, C., Jarman, H., Johnson, S., McDaid, D., Pariza, P., Park, A. L., Smith, J. A., Stovold, E., Turner, K., & Gillard, S. (2022). Short-stay crisis units for mental health patients on crisis care pathways: systematic review and meta-analysis. *BJPsych Open*, 8(4), e144. <https://doi.org/10.1192/bjo.2022.534>
2. Arizona Complete Health (n.d.). Crisis system dashboard. Crisis System Dashboard. <https://www.azcompletehealth.com/providers/resources/crisis-system-metrics.html>
3. Balfour, M. E., Tanner, K., Jurica, P. J., Rhoads, R., & Carson, C. A. (2016). Crisis Reliability Indicators Supporting Emergency Services (CRISES): A framework for developing performance measures for behavioral health crisis and psychiatric emergency programs. *Community Mental Health Journal*, 52, 1–9. <https://doi.org/10.1007/s10597-015-9954-5>
4. Balfour, M. E., & Carson, C. A. (2024). Designing systems for high-acuity populations. *Psychiatric Clinics of North America*, 47(3), 377–392. <https://www.sciencedirect.com/science/article/pii/S0193953X24000443>
5. Bitsko, R. H., Claussen, A. H., Lichstein, J., Black, L. I., Jones, S. E., Danielson, M. L., Hoenig, J. M., Jack, S. P. D., Brody, D. J., Gyawali, S., Maenner, M. J., & Blumberg, S. J. (2022). Mental health surveillance among children – United States, 2013–2019. *MMWR Supplements*, 71(2), 1–42. <https://doi.org/10.15585/mmwr.su7102a1>
6. Browne, G. J. (2000). A short stay or 23-hour ward in a general and academic children's hospital: are they effective? *Pediatric Emergency Care*, 16(4), 223–229. <https://doi.org/10.1097/00006565-200008000-00001>
7. Burns, A., Kampman, H., & Menachemi, N. (2025). County characteristics associated with behavioral health emergency medical services calls. *Health Affairs Scholar*, 3(4), qxaf054. <https://doi.org/10.1093/haschl/qxaf054>
8. Burns, A., Meanwell, E., Blackburn, J., Adams, Z., Hulvershorn, L., & Pescosolido, B. (2025). A patient-centered outcomes framework for evaluating behavioral health crisis care. *Psychiatric Services*, 76(9), 834–845. <https://doi.org/10.1176/appi.ps.20250040>
9. Burns, A., Menachemi, N., Yeager, V. A., Vest, J. R., Mazurenko, O. Adoption of Best Practices in Behavioral Health Crisis Care by Mental Health Treatment Facilities. *Psychiatric services* (, & Washington, D. C. (2023). 74(9), 929–935. <https://doi.org/10.1176/appi.ps.20220427>
10. Burns, A., Vest, J. R., Menachemi, N., Mazurenko, O., Salyers, M. P., & Yeager, V. A. (2024). Market Factors Associated with Comprehensive Behavioral Health Crisis Care Availability: A Resource Dependence Theory Study. *Inquiry: A Journal of Medical Care Organization, Provision and Financing*, 61, 469580241256822.
11. Cantor, J., Schuler, M. S., Kerber, R., Purtle, J., & McBain, R. K. (2025). Changes in Specialty Crisis Services Offered Before and After the Launch of the 988 Suicide and Crisis Lifeline. *JAMA psychiatry*, 82(4), 379–385. <https://doi.org/10.1001/jamapsychiatry.2024.4548>
12. Clarke, D. E., Dusome, D., & Hughes, L. (2007). Emergency department from the mental health client's perspective. *International Journal of Mental Health Nursing*, 16(2), 126–131. <https://doi.org/10.1111/j.1447-0349.2007.00455.x>

13. Claudius, I., Tolles, J., Fleischman, R., Muller, V., Padlipsky, P., Kelly, P., & Saidinejad, M. (2024). Process and Impact of Development of an Adolescent Emergency Psychiatry Unit at a Large Urban Hospital. *Pediatric emergency care*, 40(8), 598–602. <https://doi.org/10.1097/PEC.0000000000003212>
14. Currier, G. W., & Allen, M. (2003). Organization and function of academic psychiatric emergency services. *General hospital psychiatry*, 25(2), 124–129. [https://doi.org/10.1016/s0163-8343\(02\)00287-6](https://doi.org/10.1016/s0163-8343(02)00287-6)
15. da Cruz, T. A., da Cunha, G. N., de Moraes, V. P., Massarini, R., Yoshida, C. M., Tenguam, P. T., Garcia, M. V., Varoto, D. A., de Oliveira, M. B., de Andrade, A. G., de Azevedo-Marques Périco, C., do, Nascimento, V. B., & Castaldelli-Maia, J. M. (2014). ICD-10 mental and behavioural disorders due to use of crack and powder cocaine as treated at a public psychiatric emergency service: an analysis of visit predictors. *International review of psychiatry (Abingdon, England)*, 26(4), 508–514. <https://doi.org/10.3109/09540261.2014.928271>
16. Edmonds, A., Saint-Phard, E., Harrison, E., Natzke, B., Vine, M., & Brown, J. (2025). *January 14). Financing crisis services through public and commercial insurance: Current landscape and future opportunities*. Mathematica. U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation.
17. <https://aspe.hhs.gov/sites/default/files/documents/39f90405c77dd3b192c72a182ed5202e/financing-crisis-services-current-future-opportunities.pdf>
18. Ennis, E., & Walker, E. (2022). Experiences of a Community Crisis Intervention Service. *Issues in mental health nursing*, 43(2), 96–102. <https://doi.org/10.1080/01612840.2021.1953650>
19. Francis, E., Marchand, W., Hart, M., Carter, A., Schinka, J., Feldman, A., & Ordorica, P. (2000). Utilization and outcome in an overnight psychiatric observation program at a Veterans Affairs Medical Center. *Psychiatric Services*, 51(1), 92–95. <https://doi.org/10.1176/ps.51.1.92>
20. Gillig, P. M., Hillard, J. R., Bell, J., Combs, H. E., Martin, C., & Deddens, J. A. (1989). The psychiatric emergency service holding area: Effect on utilization of inpatient resources. *American Journal of Psychiatry*, 146(3), 369–372. <https://doi.org/10.1176/ajp.146.3.369>
21. Goldsmith, L. P., Anderson, K., Clarke, G., Crowe, C., Jarman, H., Johnson, S., Lomani, J., McDaid, D., Park, A. L., Smith, J. G., & Gillard, S. (2023). Service use preceding and following first referral for psychiatric emergency care at a short-stay crisis unit: A cohort study across three cities and one rural area in England. *The International journal of social psychiatry*, 69(4), 928–941. <https://doi.org/10.1177/00207640221142530>
22. Griswold, K. S., Servoss, T. J., Leonard, K. E., Pastore, P. A., Smith, S. J., Wagner, C., Stephan, M., & Thrist, M. (2005). Connections to primary medical care after psychiatric crisis. *The Journal of the American Board of Family Practice*, 18(3), 166–172. <https://doi.org/10.3122/jabfm.18.3.166>
23. Heyland, M., & Johnson, M. (2017). Evaluating an Alternative to the Emergency Department for Adults in Mental Health Crisis. *Issues in mental health nursing*, 38(7), 557–561. <https://doi.org/10.1080/01612840.2017.1300841>
24. Hudson, C., Bowman, C., & Randall, M. (2025). Are EDs the Only Option? Hospital-Based Alternatives to the Emergency Department for Mental Health Crises: A Scoping Review. *Int J Mental Health Nurs*, 34, e70060. <https://doi.org/10.1111/inm.70060>
25. Johnson, S., Dalton-Locke, C., Vera San Juan, N., Foye, U., Oram, S., Papamichail, A., Landau, S., Rowan Olive, R., Jeynes, T., Shah, P., Sheridan Rains, L., Lloyd-Evans, B., Carr, S., Killaspy, H., Gillard, S., & Simpson, A. (2021). Impact on mental health care and on mental health service users of the COVID-19 pandemic: A mixed methods survey of UK mental health care staff. *Social Psychiatry and Psychiatric Epidemiology*, 56(1), 25–37. <https://doi.org/10.1007/s00127-020-01927-4>
26. Keslar, R., Bacon, C., Snyder, A., Rhew, D., & Epstein, C. (2025). Emergency departmental barriers to caring for mental health boarders. *Journal of Emergency Nursing*, 52(2). <https://doi.org/10.1016/j.jen.2025.01.009>
27. Kim, A. K., Vakkalanka, J. P., Van Heukelom, P., Tate, J., & Lee, S. (2022). Emergency psychiatric assessment, treatment, and healing (EmPATH) unit decreases hospital admission for patients presenting with suicidal ideation in rural America. *Academic emergency medicine. Official Journal of the Society for Academic Emergency Medicine*, 29(2), 142–149. <https://doi.org/10.1111/acem.14374>
28. Laderman, M., Dasgupta, A., Henderson, S., & Waghray, A. (2018). *October 18). Tackling the mental health crisis: Emergency departments look upstream for solutions*. Health Affairs Forefront.
29. <https://>
30. Magarey, A. W., Weng, J., Looi, J. C. L., Allison, S., & Bastiampillai, T. (2023). Systematic review of psychiatric observation units and their impact on emergency department boarding. *Primary Care Companion for CNS Disorders*, 25(6), 22r03468. <https://doi.org/10.4088/PCC.22r03468>
31. Mojtabai, R., & Olsson, M. (2020). National Trends in Mental Health Care for US Adolescents. *JAMA Psychiatry*, 77(7), 703–714. <https://doi.org/10.1001/jamapsychiatry.2020.0279>
32. Nicks, B. A., & Manthey, D. M. (2012). The impact of psychiatric patient boarding in emergency.
33. departments. *Emergency Medicine International* (2012). 360308. <https://doi.org/10.1155/2012/360308>
34. Peters, M. D. J., Godfrey, C., McInerney, P., Khalil, H., Larsen, P., Marnie, C., Pollock, D., Tricco, A. C., & Munn, Z. (2022). Best practice guidance and reporting items for the development of scoping review protocols. *JBI Evidence Synthesis*, 20(4), 953–968. <https://doi.org/10.11124/JBIES-21-00242>
35. Rivard, M. K., Cash, R. E., Chrzan, K., Powell, J., Kaye, G., Salsberry, P., & Panchal, A. R. (2021). Public health surveillance of behavioral health emergencies through emergency medical services data. *Prehospital Emergency Care*, 26(6), 792–800.

36. San Thinn, D. S., Kuswanto, C. N., Sum, M. Y., Chai, S. B., Sok, D., Xu, H. K., Su, C. C., Sengupta, A. H., Jacob, S., R., & Sim, K. (2015). The 23-Hour Observation Unit Admissions Within the Emergency Service at a National Tertiary Psychiatric Hospital: Clarifying Clinical Profiles, Outcomes, and Predictors of Subsequent Hospitalization. The primary care companion for CNS disorders, 17(4), 10.4088/PCC.15m01789. <https://doi.org/10.4088/PCC.15m01789>.
37. Sandoval, E., Smith, S., Walter, J., Schuman, S. A., Olson, M. P., Striefler, R., Brown, S., & Hickner, J. (2010). A comparison of frequent and infrequent visitors to an urban emergency department. *The Journal of Emergency Medicine*, 38(2), 115–121. <https://doi.org/10.1016/j.jemermed.2007.09.042>
38. Saxon, V. A., Mukherjee, D., & Thomas, D. (2018). Behavioral health crisis stabilization centers: A new normal. *Journal of Mental Health & Clinical Psychology*. <https://doi.org/10.29245/2578-2959/2018/3.1124>
39. Smith-Bernardin, S. (2021). Changing the care environment for acute intoxication: Providing intoxicated adults with an alternative to the emergency department and jail. *Journal of Studies on Alcohol and Drugs*, 82(5), 678–684. <https://doi.org/10.15288/jsad.2021.82.678>
40. Stamy, C., Shane, D. M., Kannedy, L., Van Heukelom, P., Mohr, N. M., Tate, J., Montross, K., & Lee, S. (2021). Economic Evaluation of the Emergency Department After Implementation of an Emergency Psychiatric Assessment, Treatment, and Healing Unit. *Academic emergency medicine: Official Jjournal of the Society for Academic Emergency Medicine*, 28(1), 82–91. <https://doi.org/10.1111/acem.14118>
41. Stefanis, N., Rabe-Hesketh, S., Clark, B., & Bebbington, P. (1999). An evaluation of a psychiatric emergency clinic. *Journal of Mental Health*, 8(1), 29–42.
42. Substance Abuse and Mental Health Services Administration. (2014). *Crisis services: Effectiveness, cost- effectiveness, and funding strategies (HHS Publication No. SMA-14-4848)*. U.S. Department of Health and Human Services. <https://library.samhsa.gov/sites/default/files/sma14-4848.pdf>
43. Substance Abuse and Mental Health Services Administration (2019). National guidelines for behavioral health crisis care: Best practice toolkit. U.S. Department of Health and Human Services. <https://store.samhsa.gov/product/national-guidelines-for-behavioral-health-crisis-care-best-practice- toolkit/pep19-pl-guide-3>
44. Substance Abuse and Mental Health Services Administration (2020). National guidelines for behavioral health crisis care: Best practice toolkit. U.S. Department of Health and Human Services. <https://www.accessliving.org/wp-content/uploads/2024/10/national-guidelines-for-behavioral-health-crisis-care-02242020-1.pdf>
45. Substance Abuse and Mental Health Services Administration. (2024). *National behavioral health crisis care guidance*. U.S. Department of Health and Human Services.
46. <https://library.samhsa.gov/product/national-behavioral-health-crisis-care-guidance/pep24-01-037>
47. Substance Abuse and Mental Health Services Administration (2025a). 2025 national guidelines for a behavioral health coordinated system of crisis care. U.S. Department of Health and Human Services. <https://988crisissystemshelp.samhsa.gov/sites/default/files/2025-04/national-guidelines-crisis-care-pep24-01-037.pdf>
48. Substance Abuse and Mental Health Services Administration (2025b, September 5). Best Practices for Implementing the Continuum of Crisis Services Under Medicaid and CHIP. <https://www.medicaid.gov/federal-policy-guidance/downloads/sho25004.pdf>
49. Thomas, K. C., Owino, H., Ansari, S., Adams, L., Cyr, J. M., Gaynes, B. N., & Glickman, S. W. (2018). Patient- Centered Values and Experiences with Emergency Department and Mental Health Crisis Care. *Administration and policy in mental health*, 45(4), 611–622. <https://doi.org/10.1007/s10488-018-0849-y>
50. Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., & Straus, S. E. (2018). PRISMA extension for scoping reviews (PRISMA- ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467–473.
51. <https://doi.org/10.7326/M18-0850>
52. Veritas Health Innovation (2025). Covidence systematic review software. *Veritas Health Innovation*. <https://www.covidence.org>
53. Vigo, D., Thornicroft, G., & Atun, R. (2016). Estimating the true global burden of mental illness. *The Lancet Psychiatry*, 3(2), 171–178. [https://doi.org/10.1016/S2215-0366\(15\)00505-2](https://doi.org/10.1016/S2215-0366(15)00505-2)
54. Walpole, S. C. (2019). Including papers in languages other than English in systematic reviews: Important, feasible, yet often omitted. *Journal of Clinical Epidemiology*, 111, 127–134. <https://doi.org/10.1016/j.jclinepi.2019.03.004>
55. Wang, Z., Brito, J. P., Tsapas, A., Griebeler, M. L., Alahdab, F., & Murad, M. H. (2015). Systematic reviews with language restrictions and no author contact have lower overall credibility: a methodology study. *Clinical epidemiology*, 7, 243–247. <https://doi.org/10.2147/CLEP.S78879>
56. Ware, N. C., Tugenberg, T., Dickey, B., McHorney, C. A. An ethnographic study of the meaning of continuity of care in mental health services. *Psychiatric services* (, & Washington, D. C. (1999). 50(3), 395–400. <https://doi.org/10.1176/ps.50.3.395>
57. Warren, O., Smith-Bernardin, S., Jamieson, K., Zaller, N., & Liferidge, A. (2016). Identification and practice patterns of sobering centers in the United States. *Journal of Health Care for the Poor and Underserved*, 27(4), 1843–1857. <https://doi.org/10.1353/hpu.2016.0166>

58. Wise-Harris, D., Pauly, D., Kahan, D., Tan de Bibiana, J., Hwang, S. W., & Stergiopoulos, V. (2017). Hospital was the only option: Experiences of frequent emergency department users in mental health. *Administration and Policy in Mental Health and Mental Health Services Research*, 44(3), 405–412. <https://doi.org/10.1007/s10488-016-0728-3>

59. World Health Organization (2022). World mental health report: Transforming mental health for all. World Health Organization. <https://www.who.int/publications/i/item/9789240049338>

60. Yang, J., Glover, N., & Wood, L. (2025). Patient experiences of crisis home treatment teams: A systematic review and thematic synthesis. *Social Psychiatry and Psychiatric Epidemiology*, 60(9), 2035–2047. <https://doi.org/10.1007/s00127-025-02830-6>

Figures

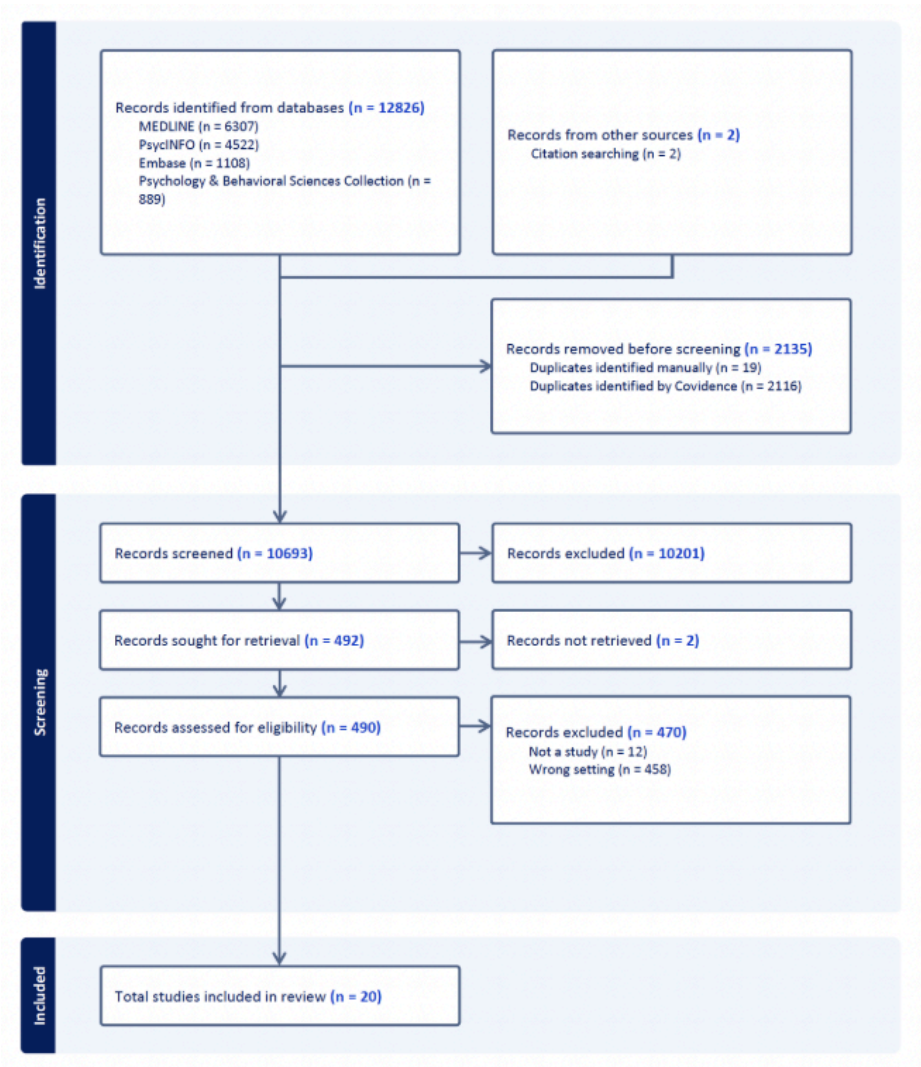


Figure 1
PRISMA Flow Diagram

System Structure	System Implementation	System Utilization	Social Outcomes	Health Outcomes
+ Team size & composition + Cost-effectiveness + Establishment of key partnerships (e.g., police, EMS, social services) - Team member well-being - Team training & education * Payment model/methods accepted * Physical characteristics of treatment space * Organizational characteristics of the facility	+ Referral pathways to crisis services + Availability of crisis team (i.e., actual hours of operation) + Use of a suicide screening tool - Public awareness of crisis services - Availability of police co-response * Use of other behavioral health screening tools/assessments * Specific services/interventions available * Onsite medication management	Crisis System + Crisis service utilization + Response times + Length of encounter + Follow-ups completed by the crisis team Patient Information + Demographics + Baseline status + Disposition + Experience + Satisfaction Referrals + Referrals made to: + Ongoing mental health or substance use treatment + Inpatient treatment + Social resources + Medication management - Actual use of referral	Social Needs + Housing status + Employment + Insurance + Transportation access - Sense of social support - Food security - Safety - Family reunification Preventable Experiences + Criminal legal involvement - Child services involvement (i.e., foster care) - Exposure to public or structural stigma - Exposure to traumatic events	Preventable Service Utilization + Emergency department visits + Inpatient hospitalizations - Emergency medical services (911) calls Short-Term Health Outcomes + Acute stabilization + Mental health symptoms + Substance use behaviors Long-Term Health Outcomes - Overall well-being - Suicide rates - Overdose rates

Figure 2

Evaluation Framework for 23-hour Crisis Observation and Stabilization Services

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- [SupplementaryFile1Studyprotocol.docx](#)
- [SupplementaryFile2Searchstrategies.docx](#)