

Supplementary material 15
Description of duration and type of intervention provided

Approach	Duration and type of treatment
Outpatient mental health programmes	
Outpatient Crisis Programme Roman et al. 2018 ¹	Duration: until connected to an ongoing provider The programme provides assistance with assessment, consultation, safety planning, and assistance with hospitalisation when patients are experiencing a MH crisis Bridging therapy: Licensed therapists provide short-term therapy to CYP & families while they are waiting for ongoing care Family involvement: Yes
Rapid Response Outpatient Model Greenfield et al. 2002 ² Latimer et al. 2014 ³	Duration: Mean length of stay 6.6±5.6 days Outpatient care immediately after assessment in the PED Interventions were aimed at reframing any misconceptions, maladaptive behaviours, and communication patterns that contributed to the patient's or the family's stresses Medication was used when appropriate & and community resources were used when available Family involvement: Yes
Outpatient Psychiatry Emergency Room Follow-Up Team (ERFUT) Greenfield et al. 1995 ⁴	Duration: NR Intensive, short term psycho dynamically driven intervention Medication reserved for psychotic patients. Behavioural approaches for patients with conduct disorder Family involvement: Yes
Integrated Pediatric Mental Health Outpatient Clinic Maslow et al. 2017 ⁵	Duration: single evaluation (1 hr session, extended evaluation 2-5 1 hr sessions) All develop a safety plan and some go onto receive brief intervention services (ie, psychotherapy, medication management) while coordinating long-term disposition plans. All care involves team-based case management. Accordingly, the multidisciplinary team meets during a regularly scheduled, weekly meeting to develop treatment plans and to coordinate care for complicated case Family involvement: NR
Adolescent crisis service Gillig 2004 ⁶	Duration: 24 hours The clinical social work undertakes a supportive, reality-based, present-focused therapeutic intervention at the time of the emergency assessment after consulting with one of the general psychiatrists by telephone. In some cases, the clinical social worker returned a second time to the urgent care facility to re-evaluate the status of the adolescent within 24 hours Family involvement: NR
Urgent telepsychiatry assessment and brief intervention Roberts et al. 2017 ⁷	Duration: 4 weeks Brief intervention for medication initiation and stabilization, individual and family crisis intervention, and behaviour management can be provided. Assessments and interventions are conducted through face-to-face appointment for those who live locally or through telepsychiatry if located in rural or remote communities Family involvement: Yes

Mobile crisis services	
Mobile Crisis Intervention Service Sowar et al. 2018 ⁸	Duration: after initial response clinicians can work with the family for up to 6 weeks (average 2 to 3 weeks) Rapid deployment to home or community locations, warm phone lines (crisis line run by peers), crisis stabilisation, crisis safety planning, short-term treatment Family involvement: Yes
Emergency Mobile Psychiatric Services Vanderploeg et al. 2016 ⁹ Fendrich et al. 2019 ¹⁰	Duration: variable dependent on need with data from cohort study report up to 45 days Crisis stabilisation & support, screening & assessment, suicide assessment & prevention, brief solution-focused interventions Family involvement: Yes
Mobile response team Martin 2005 ¹¹	Duration: NR Family-based mental health crisis stabilisation, support, & consultation to youth and their parents &/or guardians Assists the family in creating a safety plan to maintain the child or adolescent at home whenever safely possible Functions from a multi-systems approach to treatment, collaborating with several MH agencies as part of comprehensive MH services for high-need clients Family involvement: Yes
Specialised ED interventions	
Family intervention for suicide prevention Asarnow et al. 2009, ¹² 2011 ¹³ Hughes et al. 2013 ¹⁴	Duration: single ED session Brief youth and family crisis session in the ED Family involvement: Yes
Specialised emergency room program Rotheram-Borus 1996a, ¹⁵ 1996b, ¹⁶ 2000 ¹⁷	Duration: single ED session and a further six outpatient sessions Family therapy session in which the family identified and planned for any possible suicide-eliciting situations over the next week and set goals for outpatient treatment. Outpatient treatment was a 6 session highly structured treatment protocol that used both behavioural and cognitive techniques, including behavioural contracting, cognitive restructuring, therapist modelling, structured role-playing, and reframing, Family involvement: Yes
Family-Based Crisis Intervention Ginnis et al. 2015 ¹⁸ Wharff et al. 2012, ¹⁹ 2019 ²⁰	Duration: single ED session and follow up telephone calls for a period of 3 months Crisis stabilisation, psycho-education, cognitive behavioural skill building (cognitive restructuring, behavioural activation & problem solving), therapeutic readiness, safety planning and treatment planning Family involvement: Yes
Crisis service located within ED	
Pediatric Psychiatry Crisis Service Feiguine et al. 2000 ²¹	Duration: four to six weeks Initially seen daily for a brief period of time for crisis stabilisation Then a period of intensive treatment, with the patient and the family seen as frequently as necessary in order to target the specific behaviours and interpersonal interactions that led to the development of the crisis Some if appropriate may be offered a course of problem-focused short term psychotherapy Family involvement: Yes

Washburn Allina Acute Response Model Roman et al. 2018 ¹	Duration: NR Crisis stabilisation team offers families a short-term, 5-session crisis intervention: one warm handoff (a face-to-face contact with dedicated licensed crisis clinician on site or via telehealth) & 4 additional crisis stabilisation sessions in the community Family involvement: Yes
Increasing paediatric mental health expertise in the ED	
Additionally trained psychiatric professionals Holder et al. 2017 ²²	Duration: NR No details provided of any treatment provided by the social workers, although a mention that the child and adolescent psychiatrist would clinically evaluate and treat complex cases Family involvement: NR
Dedicated MH team Uspal et al. 2016 ²³	Duration: NR Behavioural interventions, brief psychoeducation to patients & families, crisis prevention planning
Home or community based programmes	
Home based Multi Systemic Therapy Henggeler et al. 1999 ²⁴ , 2003 ²⁵ Huey et al. 2004 ²⁶ Rowland et al. 2000 ²⁷ Schoenwald et al. 2000 ²⁸ Sheidow et al. 2004 ²⁹	Duration: variable dependent on need data from RCTS report an average of 123 days Resolution of initial crisis MST treatment protocol Inpatient hospitalisation was a placement option Family involvement: Yes
Intensive Home Treatment and Psychiatric High & Intensive Care Muskens et al. 2019 ³⁰	Duration: HIC 2 weeks; IHT: average 4-5 months HIC: Before start or during IHT, there is a possibility of short admission at a HIC unit, together with their caregivers The same MHPs of IHT are involved in the treatment of the patient & their caregivers during this short admission at the HIC Solution-focused therapy and attachment-based family therapy & individual interventions as needed (medication, CBT) Family involvement: Yes
Home Based Crisis Intervention Enhanced HBCI Crisis Case Management Evans et al. 1997, ³¹ 2003 ³²	Duration: 4-6 weeks HCBI: In home visits and support to resolve immediate crisis and then on a regular and frequent basis throughout crisis services to teach skills, improve family relationships HCBI+: as HCBI with the addition of providing long-term family support services. In-home and out-of-home respite care CCM: Assess needs, provide concrete services. In-home and out-of-home respite care Family involvement: Yes
Safety First Assessment Intervention Bickerton et al. 2007, 2014	Duration: NR The model enables the majority of clients to be assessed and managed in an outpatient environment Level 1 focuses on establishing safety Level 2 builds on the foundation of safety to assess & formulate the YP's presenting problem in a relational context. Level 3 combines the first two levels to form the basis for the evolving shared understanding of concerns between

	<p>clinicians and the client and family</p> <p>Level 4 involves collaborative planning regarding future directions and therapeutic options</p> <p>Level 5 specific therapeutic interventions as agreed upon in Level 4</p> <p>Family involvement: Yes</p>
<p>Crisis and Transition Services (CATS)</p> <p>Ribbers et al. 2020</p> <p>USA</p>	<p>Duration: 14 to 60 days</p> <p>ED diversion program, provides transitional clinical care, offering safety planning, lethal means restriction counselling, 24-hour crisis support, and care coordination. Other services variably include in-home individual and family therapy, psychiatric evaluation and medication management, and family peer support</p> <p>Family involvement: yes</p>
<p>School-hospital partnership</p>	
<p>Multi-tiered systems of support</p> <p>Walter et al. 2019³³</p>	<p>Duration: NR</p> <p>A school hospital partnership in which crisis services provided by programme clinicians but no further details provided</p> <p>Family involvement: NR</p>
<p>Crisis programme within a RTC</p>	
<p>On-campus Crisis Residence programme</p> <p>Baker and Dale 2002³⁴</p> <p>Baker 2004³⁵</p>	<p>Duration: minimum of 72 hours up to 21 days</p> <p>Bio-psycho-social approach which takes the child's biology, internal psychology, and social/environmental experiences in producing the functional difficulties that required treatment into consideration</p> <p>Involving a specific focus on maltreatment experiences, histories of behavioural problems, precipitating behaviours & events & presenting problems</p> <p>Family involvement: No</p>
<p>Multi component or multi agency services</p>	
<p>Ventura County Children's Crisis Continuum</p> <p>Sowar et al. 2018⁸</p>	<p>MCT: Duration: NR</p> <p>Deescalate mental health crisis and use tools to help youths remain at home or in the community and involves safety planning and connecting families to MH services and resources</p> <p>CSU: Duration: less than 24 hours</p> <p>Unlocked, 4 bed facility where youths are assessed to determine if they be stabilised enough to return home or transferred to the CRT or inpatient psychiatric hospital for further intensive treatment</p> <p>Develop a safety plan and link with outpatient MH providers</p> <p>Short term CRT: Duration: few days to months</p> <p>Unlocked facility serves 2 youth at time. Initially admitted to CSU but require further stabilisation and treatment services</p> <p>Intensive individual and family therapy, case therapy and referral to aftercare services</p> <p>Family involvement: Yes</p>
<p>The Solar community crisis resolution team</p> <p>Vusio et al. 2020³⁶</p>	<p>Duration: NR</p> <p>Availability of a crisis line</p> <p>Home or community treatment</p>

UK	Crisis support over the phone or support in solar clinics
Generic services with crisis function	
The Market Place, Leeds Garcia et al. 2017 ³⁷	Duration: NR Early intervention in crisis Family involvement: No (but supports parents making referrals to the organisation)
Community Links, Canning Town Garcia et al. 2017 ³⁷	Duration 24-48 hours Just states that a large variety of services are available for those experiencing distress/crisis including drop-in support with attending other services, intensive support and childcare Family involvement: No (as can act as an additional barrier but can be organised if the YP requests it)
Sorted Not Screwed Up, Aberdeen Foyer, Aberdeen Garcia et al. 2017 ³⁷	Only details provided listed under services provided are rapid response/follow-up to crisis Family involvement: No (can be organised if the YP requests it)

Key: CBT: cognitive behavioural therapy; CCM: Crisis Case Management; CRT: short term crisis resolution team; CSU: crisis stabilisation unit; HCBI +: Enhanced Home Based Crisis Intervention; HCBI: Home Based Crisis Intervention; HIC: High & Intensive Care; IHT: Intensive Home Treatment; MCT: mobile crisis team; MH: mental health; MHP: mental health professionals; NR: not reported; YP: young person

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