Service improvement in Crisis Resolution Teams
A report from The CORE Study

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Today’s presentation

• The case for CRT service improvement: CORE in context

• CRT quality assessment: the CORE Fidelity Scale

• CRT performance: the national picture

• Supporting CRT service improvement: the CORE CRT Resource Pack

• The CORE Trial: methods and preliminary results

• What next for CRT service improvement
The development of CRTs

Fore-runners of modern CRTs included:

• The *Training in Community Living* program (Stein and Test 1980)
  (A hybrid CRT/ACT service in Madison, Wisconsin)

• The *Denver system* (Polak and Kirby 1976)
  (Crisis assessment and family sponsor homes, Colorado)

• The *Barnet Family Service* (Scott 1980)
  (Brief family support designed to avert admission, London)
Crisis home treatment: the rationale

Crisis theory: Crisis = an opportunity for growth/change

Supporting someone in mental health crisis in their home environment may help:

• Retain/enhance support from social networks
• Address environmental stressors precipitating the crisis
• Develop sustainable coping strategies
CRTs: a social systems intervention

• **Make 3 phone calls**
  (To key involved others before initial assessment: information gathering and early engagement with social systems)

• **Meet “survival needs”**
  (CRTs must address someone’s immediate, urgent concerns before expecting engagement with/benefit from treatment. A first CRT visit may involve: buying food, fixing the door lock, unblocking the sink etc)

Proto – “Open Dialogue”?
CRTs in the UK

- CRTs were nationally mandated in the NHS Plan (2000)
  - Based on limited evidence
  - A massive shift in staff resources and the focus of acute treatment
  - In the context of severe pressures on inpatient beds
  - And a major overhaul of mental health care (ACT and EIS teams)

- By 2012: 218 CRTs: in every NHS Trust
CRTs: evidence for effectiveness

- CRT care led to reduced hospital admission and inpatient bed use compared to standard CMHT care in an RCT (Johnson et al. 2005) and non-randomised studies.

- A national service mapping (Glover et al. 2006) found the introduction of CRTs was associated with reduction of admissions.

- Service users generally express a preference for CRT care over hospital admission (Bracken et al 2000, Johnson et al. 2005, Nolan et al. 2005)
CRTs: challenges of implementation

• There is wide variation in CRT teams’ organisation and service delivery (Onyett 2006, Lloyd-Evans 2014)

• Impact on admissions less marked than expected
  ➢ Variable impact of implementation (Glover 2006)
  ➢ In the context of ward closures (Jacobs and Barrenho 2011)
  ➢ No impact on compulsory admissions (HSCIC 2015)

• Concerns about risk management (NCISH 2015)

• Consistent criticisms from users (MIND 2011; CQC 2015)
#crisisteamfail

Reluctant and 12 others follow

The Joy of Bex @debeca · Jan 14
I'm in Crisis. The Crisis Team line goes to answerphone. I could have predicted it.

#crisisteamfail

Billiam Babble @billiambabble · 8 Aug 2015
A&E #CrisisTeam after J's O/D today: read a book on "Mindfulness".
[link]
#crisisteamfail #MHUK #NHS

Cherry @SarahCherry88 · 8 Jun 2015
5 hours ago crisis team said they would see me, just rang to see where they are and they have no record of the planned visit #crisisteamfail

MentalHealth Mission @MentalHealthMis · 17 Apr 2015
I've had a walk, I've ran out of tea, I don't like hot chocolate, I don't have a bath & #diazepam hasn't worked. Now what? #crisisteamfail

Charlotte Walker and 1 other follow

Bodhmall @bodhmall · 15 Feb 2015
Dragged myself to see crisis team this am as arranged, everyone out apart from bleep holder who didn't even ask how I felt #crisisteamfail
The CORE Programme

- A 5-year research programme: 2011 - 2016
- Funded by a DH NIHR Programme Grant
- Led by Prof. Sonia Johnson
- Managed by Camden and Islington NHS FT/UCL

Aims:
- Develop evidence about how to optimise CRTs
- Test a service improvement programme for CRTs
CORE Study: overview

1. Develop a model of best CRT practice
   - Evidence review, national survey, stakeholder interviews

2. Develop a “fidelity scale” to assess teams’ model adherence
   - Assess UK CRT fidelity in a 75-team survey
   - Gather best practice examples and resources from CRTs

3. Develop quality improvement resources for CRTs
   - Test CRT “Resource Pack” in a 25-team cluster randomised trial
CORE: Following an established service improvement process

The US Evidence-Based Practices Program pioneered this service improvement process (Mueser et al. 2003)

Service Model > Fidelity Measure > Implementation Resource Kit

• Successfully used with other mental health interventions (ACT teams, supported employment, dual diagnosis treatment) (McHugo 2007)

• Relevant experience about strategies to support quality improvement in services
Identifying critical ingredients of CRTs

CORE development work 2011-13 comprised:

• **A systematic literature review** (Wheeler et al. 2015)
  Quantitative studies n=25; qualitative studies n=24; guidelines n=20

• **A national survey of CRTs** (Lloyd-Evans et al. submitted)
  Questionnaire to all CRT managers in England regarding CRT service delivery and organisation + what supports effective CRT care (n=188 – 88% response rate)

• **Interviews with CRT stakeholders** (Morant et al. in preparation)
  Interviews with service users n=41; carers n=20, mental health staff, managers and commissioners (26 focus groups and 9 individual interviews) CRT developers n=11
CRT critical ingredients: what do we know?

• Little empirical evidence (some support for: longer opening hours and presence of a psychiatrist)

• Broad consensus among stakeholders and guidelines about characteristics of a good CRT

• 2001 DH Policy Implementation Guidance is still supported
Conclusions from CORE development work

• Stakeholder consultation and evidence review provide a basis for specifying a model of best CRT practice
• UK CRTs’ organisation and service delivery is very variable
• The CRT survey provides guidance about what is feasible

• A **CRT Fidelity Scale** could help:
  - Assess CRT organisation and service delivery
  - Act as a measure of CRT service quality
  - Guide service improvement initiatives
Developing a CRT Fidelity Scale: the concept mapping process

232 statements relating to CRT best practice were generated from CORE development work.

These were refined to 72 statements for concept mapping.

CRT stakeholders (n=68) prioritised and grouped statements.

39 item scale.
CORE CRT Concept Map

- Content and delivery of care
- Staffing and Team Procedures
- Timing and location of care
- Access and referrals
The CORE CRT Fidelity Scale

- 39-item fidelity scale developed from concept mapping
- Each item scored 1-5
- Score of 5 = excellent fidelity; 4 = good fidelity
- Scoring criteria developed with reference to CORE development work
- Total score possible range: 39-195

- Refined following initial piloting and 75-team survey (V2)
The fidelity review process

- A one-day audit
- 3-person reviewing team (including a practitioner and a service user or carer)
- Interviews with: CRT manager, staff team, managers of other services, service users, carers
- Review of case notes, service records and policies

- A written report with scores and feedback for each item provided to the CRT following a review
The CORE CRT Fidelity Survey
The CORE CRT fidelity survey

• 1-day fidelity reviews were conducted in 75 CRTs in 2013/14

• Range of total scores: 73-151 (min=39; max=195)

• Median total score: 122 (IQR 111-132)

• 33 item scores ranged 1-5
• 6 item scores ranged 1-4 or 2-5
CRT Fidelity: targets for service improvement

- Rapid response
- Focus on alternative to admission
- Continuity of care
- Working with families
- Recovery focus
## CRT Fidelity compared to DH guidelines

<table>
<thead>
<tr>
<th>DH guidelines 2001</th>
<th>Teams with fidelity score of 3+</th>
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<tbody>
<tr>
<td>Time-limited intervention (item 10)</td>
<td>87%</td>
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<tr>
<td>Multi-disciplinary team (item 27)</td>
<td>84%</td>
</tr>
<tr>
<td>24/7 service (item 5)</td>
<td>75%</td>
</tr>
<tr>
<td>Working with families (item 13)</td>
<td>56%</td>
</tr>
<tr>
<td>Rapid response (item 1)</td>
<td>35%</td>
</tr>
<tr>
<td>Intensive support (item 38)</td>
<td>24%</td>
</tr>
<tr>
<td>Preventing future crises (item 24)</td>
<td>3%</td>
</tr>
</tbody>
</table>
How are Sussex CRTs doing?

CORE CRT fidelity survey
• Median total score: 122
• Range 73-151; IQR 111-132

Sussex CRTs (trial baseline scores 2014)
• 107, 130, 134, 134, 139

Before the CORE CRT Resource Kit trial, SPFT CRTs were generally better than average
CORE Study impact: reports and reviews

Listening to experience

Crisis Care Concordat

Mental Health

The Commission to review the provision of acute inpatient psychiatric care for adults

Improving acute inpatient psychiatric care for adults in England

Suicide in inpatients and under crisis resolution/home treatment

- Suicide under CRHT now 3 x inpatient care
- 37% within a week
- 43% living alone
CORE CRT Fidelity Scale: next steps

• Explore the validity of the Fidelity Scale
  ➢ Preliminary evidence established for relationship to patient satisfaction

• Explore the international applicability of the scale
  ➢ CRT fidelity review project is underway in Norway

• Assessing service quality is not enough
  ➢ The CORE CRT Resource Kit trial is developing and testing resources to support CRT service improvement
The CORE CRT Service Improvement Programme trial

A cluster-randomised trial of a service improvement programme for Crisis Resolution Teams in England
Rationale for the trial

- Evidence for the efficacy of crisis teams in the right conditions
- Most teams achieving only moderate fidelity
- No team is reaching a level of high fidelity to the model
- Improving crisis care is a high policy priority
Background

- US National Evidenced-Based Practice (EBP) Project (Gary R. Bond)
- Successfully developed fidelity scales and implementation resources
- Most of their interventions established service improvement (55% had achieved high fidelity)
- Previous studies have found correlations between fidelity to an evidence-based practice and client outcomes
EBP Project stages

- Develop and test a model of best practice measure (fidelity scale)
- Develop a set of implementation resources designed to increase fidelity to the model (including trainers to facilitate organisational change and material resources)
- Implement these resources over extended period (2 years), conducting 6 month reviews to monitor progress and give feedback
CORE trial aim

To evaluate the impact of a CRT improvement programme on:

1) Service users’ satisfaction with care (Primary outcome)
2) Fidelity to the CORE best practice model
3) Service-related outcomes
4) Staff well-being

5) Explore the experience of the programme and understand the facilitators and barriers to service improvement
Design

• Cluster randomised control trial

• 25 CRTs from 8 NHS Trusts across England

• 15 CRTs randomised to receive the service improvement programme over a one-year period

• 10 teams in control arm
Timescale

• The trial is now finished
• All baseline and follow-up data has been collected
• Qualitative interviews and case studies have been done
• Quantitative results have been sent to the statistician
• Qualitative results are being analysed
Service Improvement Programme

- Access to the **CORE online Resource Pack**
- 0.1 FTE support from a **CRT Facilitator** to support the team manager
- **Coaching and support** for facilitators from CRT and leadership experts
Ways of doing this well

**Developing relapse prevention plans**

This section includes several good examples of relapse prevention plans, which vary in length and their specific focus. Depending on the needs of the service user different plans may be more appropriate and useful for them as they attempt to avoid relapse.

> North West Sussex CRHT use the following short relapse prevention plan with service users to help them identify their personal symptoms and indicators precipitating a crisis. This is a good example of how the necessary information can be condensed into a small amount of space.

> North West Sussex CRHT Relapse Prevention Plan (.doc)

> South Tyneside Initial Response Team (IRT) use the following comprehensive Recovery Journal with service users. This allows them to reflect on their experiences and note their protective factors and support contacts, and also provides more space for reflection.

> Recovery Journal used by South Tyneside IRT (.doc)

The following guide to relapse prevention from Cambridgeshire and Peterborough NHS Trust is focused on psychosis, and the specific needs of service users who wish to avoid relapsing into a psychotic episode.

> Cambridgeshire and Peterborough NHS Trust Guide to Relapse Prevention (.doc)

In Avon and Wiltshire Partnership Trust resources have been produced for crisis, relapse and contingency planning:

> Bristol relapse and contingency planning (.pdf)

> The Mental Health Recovery website has more information on WRAP plans and how to complete them:

> Crisis WRAP plans and

> Post crisis plans

**Other useful resources**

Self-help CBT programmes have been developed as books and online courses; these might be one good way to explore how CBT can help. Two free online courses (both recommended by the Royal College of Psychiatrists) are:

> Mood Gym: https://moodgym.anu.edu.au/welcome

> Living Life to the Full: http://www.lltf.com/

**Examples of good practice**

In our fidelity review survey of 75 crisis teams in 2014, the following team achieved good model fidelity, and can be contacted for advice on how they achieved this:

> South Tyneside Initial Response Team, Northumberland, Tyne and Wear NHS Foundation Trust
Service Improvement Programme

- Access to the **CORE online Resource Pack**
- 0.1 FTE support from a **CRT Facilitator** to support the team manager
- *Coaching and support* for facilitators from CRT and leadership experts
Structures to support implementation

Implementation strategies informed by the US EBP program, including:

- Scoping Day
- Service Improvement Group/ Focused Working Groups
- Service Improvement Plan
- Learning Collaborative
- Weekly email bulletin of Resources
- Additional Fidelity review for intervention teams at 6 months and post review letter
Has it been implemented as planned?

All teams have:

• a facilitator
• had coaching throughout
• **had a scoping day**
• developed a service improvement group and plan
• been part of the Learning collaborative
• received a 6 month review, report and letter to senior management
• **use of online Resource Pack**
• Baseline and follow-up review
Scoring reminder

- Each fidelity review scored using the CORE Fidelity Scale: 39 items each scored 1-5
- 75 CRT fidelity review survey results:
  - Median score: 122
  - Range: 78 (73-151)
  - IQR: 21 (111-132)
Quantitative results – baseline and follow up fidelity review scores

### Control teams

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<th>Team</th>
<th>Baseline</th>
<th>Follow up</th>
<th>Difference</th>
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<td>115</td>
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<td>Mean</td>
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### Intervention teams

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<th>Difference</th>
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<td>116.4</td>
<td>124.5</td>
<td>8.1</td>
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# Sussex CRTs: baseline and follow up fidelity review scores

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<th>Allocation</th>
<th>Baseline</th>
<th>Follow-up</th>
<th>Change</th>
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<td>Chichester</td>
<td>Resource Kit</td>
<td>107</td>
<td>131</td>
<td>+24</td>
</tr>
<tr>
<td>Hastings</td>
<td>Resource Kit</td>
<td>130</td>
<td>149</td>
<td>+19</td>
</tr>
<tr>
<td>Worthing</td>
<td>Resource Kit</td>
<td>134</td>
<td>153</td>
<td>+19</td>
</tr>
<tr>
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<td>Control</td>
<td>139</td>
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<td>-10</td>
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<tr>
<td>Eastbourne</td>
<td>Control</td>
<td>134</td>
<td>118</td>
<td>-16</td>
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Results in context

• Changes in scores dependent on wide range of variables, of which the intervention is just one
• National context: CRTs saw an 8% drop in funding, but an 18% increase in referrals (2010-2015) http://www.communitycare.co.uk/2015/03/20/mental-health-trust-funding-8-since-2010-despite-coalitions-drive-parity-esteem/
• Initial results look promising and give an indication that the intervention was helpful in improving fidelity to the model
CORE CRT Trial: main results

- Data on patient satisfaction and staff morale have all been collected and are being analysed.
- Data on Trust admission rates and readmissions following CRT care are being collected.
- Trial results will be available later in 2016.
Qualitative data collection

- Interviewed all 7 Facilitators
- Chose 6 case study teams (range of higher and lower scores, range of rural and urban locations)
- Interviewed manager and ran a separate staff focus group interview
- Interviews audio recorded and transcribed
- Data will be analysed using thematic analysis and written up for publication
Facilitator role and support

- 7 Facilitators, 1-4 teams each, 0.1 FTE per intervention team
- Role was to encourage use of the resource pack; discussion and coaching of the CRT manager; mentoring; supervision and training of CRT staff; and liaison with senior Trust management regarding resources or organisational support
- Either existing Trust staff or external consultant
- Provided with training, regular group meetings, and individual coaching
Qualitative interviews summary: overarching themes

Facilitators, managers, and staff mentioned:

- Time
- Engagement
- Improvement
- Trust support
- Benchmark
- Service user involvement
Qualitative interviews: Facilitators

- Training/coaching/meetings/events helpful, particularly when stuck on an issue
- Positioning of Facilitator important – fine balance between –ves and +ves of being part of Trust/team or not
- Experience quite variable depending on enthusiasm and engagement of manager and staff
- Scoping days crucial and very helpful
- Regular and frequent presence team very important
Facilitators - improvements

• More helpful to be in post earlier, encourage engagement of team and senior Trust staff
• Scoping days so useful/vital to following work that would have been good to start 12 month period after scoping day
• 6 month reviews too taxing for teams, took up time that could have been spent on improvement activities
• How sustainable is the work?
Qualitative interviews: Managers

• Opportunity to reflect on why/how very useful
• Sharing practice and seeing what other teams do
• Intervention as a tool/mechanism to drive change
• Fidelity Reviews time-consuming but very helpful to benchmark the team
• FR reports good for celebrating successes and showing areas for improvement
• In general a positive experience that improved services
Managers - improvements

• More information/clarity about the structure and processes needed at the start
• Case studies of ‘perfect’ CRT for each Fidelity Scale item would be helpful
• Frustrating being scored on items teams can’t control, e.g. having a crisis house locally
• Practical issues really impact ability to make changes – e.g. staff turnover, sickness, changes in management
Qualitative interviews: Staff

- Good to know what other teams do
- Positive impact on clinical work – more consistency, working better as a team
- Space to reflect on practice was motivating, which in turn led to improved service
- Face to face time with Facilitator important, being engaged with staff rather than just manager
Staff - improvements

• Fidelity review preparation took too much time
• More clarity early on about purpose of study and expectations of staff
• Unhelpful having control teams in close proximity/same manager
CORE Study: work still to do

• Write up results
• Ongoing Service Improvement Plans – get in touch if we can help?
• In the meantime, we have a website full of resources, and a set of processes and structures to help teams make service improvements

https://www.ucl.ac.uk/core-resource-pack
Ongoing CRT service improvement initiatives

CORE will contribute data and resources to:

- Royal College Home Treatment Accreditation Scheme (HTAS)  
  [http://www.rcpsych.ac.uk/quality/qualityandaccreditation/hometreatmentaccreditation.aspx](http://www.rcpsych.ac.uk/quality/qualityandaccreditation/hometreatmentaccreditation.aspx)

- NHS England 5-year crisis care quality improvement initiative
NHS England: future plans

NHS England will be designing and implementing a 5-year national crisis and acute programme

National focus in 2016/17 on ‘preparatory’ national work before new money comes in – the national levers and incentives that can support local delivery;

- Develop access and quality standards for crisis and acute care;
- Establish much needed changes to national datasets;
- CCG Improvement and Assessment Framework – Crisis and OATs included;
- Support development of Sustainability and Transformation plans – new 5 year approach – including crisis and acute care;
- New payment models being developed for mental health and UEC
Acknowledgement

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The views expressed are those of the author and not necessarily those of the NHS, the NIHR or the Department of Health.
Any Questions?

www.ucl.ac.uk/core-study