The CORE approach to fidelity measurement

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Plan

- Why a need for quality improvement?
- Why a fidelity scale approach?
- The CORE study at UCL
- The fidelity scale
- National survey of team fidelity
The pioneering vision for crisis teams

- Assertive and intensive work to avoid hospitalisation – 24 hour service, 2+ daily visits, focus on people who would otherwise be admitted
- Change in the balance of power – more equal and effective therapeutic relationships
- Everything a hospital offers and more
- Strong social focus – networks can be mobilised and supported, social triggers to crisis identified and addressed
CRTs – achievements and cause for concern

A nationwide shift in resources, staff, treatment focus
Research – fall in admissions, good satisfaction achievable (e.g. in trials)

BUT some cause for concern:
- Uncertain whether CRTs have resulted in nationwide reduction in admissions
- Compulsory admissions STILL rising
- Significant service user and carer dissatisfaction e.g. MIND Acute Care report, #crisisteamfail
- Is risk management adequate? Average of 150 suicides per year for CRT patients: now higher than for inpatient wards (Hunt et al. 2014)
- High readmission rates? Approx 50% in 1 year in Candi
The CORE Programme

- 2011-2017
- Funded by a DH NIHR Programme Grant
- Managed by Camden and Islington NHS FT/UCL (manager Dr Bryn Lloyd-Evans)

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

(Other workstream – trial of peer supported self-management in CRTs)
CORE Study Aims: overview

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

2. Develop a “fidelity scale” to 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
The fidelity scale approach to implementation and quality improvement

- Rooted in Evidence Based Practice program in USA
- Fidelity scales measure adherence to a model of good practice, developed from evidence, stakeholder views
- Developed for a range of models – supported employment, ACT, family intervention etc.
- Without specific monitoring, fidelity scores generally low
- Fidelity scores are sensitive to change, rise with multi-component interventions
- Relationship with outcomes demonstrated for some fidelity measures e.g. supported employment
Developing a CRT Fidelity Scale: the concept mapping process

232 statements on CRT best practice generated from CORE development work

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
- Total score possible range: 39-195
- Initial piloting in 4 CRT teams, then 75 team national survey
- Day visit by team of 3 – at least one service user/carer, at least one clinician
- Interviews with staff, service users, carers, referrers; casenotes and policies and procedures examined
Example fidelity item
1. Rapid response

- a) The CRT records and monitors response times to referrals and reviews breaches of response targets
- b) The CRT responds to the referrer within 30 minutes
- c) The CRT offers an assessment with the service user which takes place within 4 hours for at least 90% of appropriate referrals
- d) The CRT offers a same-day assessment for at least 50% of appropriate referrals made before 6pm
- e) The CRT offers a same-day assessment for at least 90% of appropriate referrals made before 6pm
- f) The CRT provides an immediate mobile response to requests for assessment from emergency services
## Item 1

**Evidence sources:** C = case note review; P = paperwork review; M = manager interview; S = staff interview; SU = service user interviews; FF = Family/Carer interviews; O = interviews with staff from other mental health services.

<table>
<thead>
<tr>
<th>Item</th>
<th>Evidence</th>
<th>Scoring criteria</th>
<th>Met/Unmet</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The CRT responds quickly to new referrals</td>
<td>R, M</td>
<td>a) The CRT records and monitors response times to referrals and reviews breaches of response targets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M, S, O (P)</td>
<td>b) The CRT responds to the referer within 30 minutes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M, S, O (P)</td>
<td>c) The CRT offers an assessment with the service user which takes place within 4 hours for at least 90% of appropriate referrals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M, S, O (P)</td>
<td>d) The CRT offers a same-day assessment for at least 80% of appropriate referrals made before 8pm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M, S, O (P)</td>
<td>e) The CRT offers a same-day assessment for at least 60% of appropriate referrals made before 8pm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M, S, O (P)</td>
<td>f) The CRT provides an immediate mobile response to requests for assessment from emergency services</td>
<td></td>
</tr>
</tbody>
</table>

### Scoring

- Score 6: All criteria are met
- Score 5: 5 criteria are met
- Score 4: 4 criteria are met
- Score 3: 3 criteria are met
- Score 2: 2 criteria are met
- Score 1: 1 or fewer criteria are met

### Item Definition and Scoring Guidance

<table>
<thead>
<tr>
<th>Item</th>
<th>Definition and Scoring Guidance</th>
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<tbody>
<tr>
<td>A</td>
<td>Score as met if the CRT provides a log of the time period between receiving a referral and providing a face-to-face assessment and the CRT manager clearly describes processes used to review breaches of response times.</td>
</tr>
<tr>
<td>B</td>
<td>Requires all-source agreement from the CRT manager, staff and managers of other services that the CRT always answers phone calls from referrers in person, or courteous to the referer within 30 minutes (or more than one breach per month).</td>
</tr>
<tr>
<td>C</td>
<td>Do not include early discharge clients for % meeting response times; an immediate response is less crucial for inpatient referrals</td>
</tr>
<tr>
<td>D</td>
<td>If no log of response times, all-source agreement from CRT manager, staff and other community staff is required to assess criteria as met regarding response time to referrers and time to assessment</td>
</tr>
<tr>
<td>E</td>
<td>Requires all-source agreement from CRT staff and manager and other service managers that the CRT will go urgently to assess someone at a police station, their home or in public if requested by emergency services (e.g., police or ambulance crews) + evidence from the CRT team of at least one example of this happening within the last month</td>
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## Level of fidelity

<table>
<thead>
<tr>
<th>Fidelity level</th>
<th>Number and % of teams</th>
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<tbody>
<tr>
<td>Very low &lt;78</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Low 78 – 117</td>
<td>25 (33%)</td>
</tr>
<tr>
<td>Moderate 117 - 156</td>
<td>49 (66%)</td>
</tr>
<tr>
<td>High &gt;156</td>
<td>0</td>
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</table>
Data: subscale scores

Subscale scores for all CRTs:

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Median</th>
<th>Range</th>
<th>IQR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrals and Access</td>
<td>3.40</td>
<td>1.96</td>
<td>0.98</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.24 - 4.20)</td>
<td>(2.73 - 3.71)</td>
</tr>
<tr>
<td>Content and Delivery of Care</td>
<td>2.86</td>
<td>2.56</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.24 - 4.55)</td>
<td>(2.22 - 3.50)</td>
</tr>
<tr>
<td>Staffing and Team Procedures</td>
<td>3.25</td>
<td>1.98</td>
<td>0.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.41 - 4.39)</td>
<td>(1.49 - 2.48)</td>
</tr>
<tr>
<td>Location and Timing of Help</td>
<td>1.85</td>
<td>3.15</td>
<td>1.58</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.77 - 4.92)</td>
<td>(2.36 - 3.94)</td>
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</table>
Items teams scored highly on

Average score was above 4:

2: The CRT is easily accessible to all eligible referrers
4: The CRT will consider working with anyone who would otherwise be admitted to adult acute psychiatric hospital
15: The CRT reviews, prescribes and delivers medication for all service users when needed
23: The CRT offers service users choice regarding location, timing and types of support
28: The CRT has a psychiatrist or psychiatrists in the CRT team, with adequate staffing levels
32: The CRT has systems to ensure the safety of CRT staff members
39: The CRT mostly conducts assessments and supports service users in their home
Items teams scored lower on

Average score was below 2:

14: The CRT assesses carers’ needs and offers carers emotional and practical support
16: The CRT promotes service users’ and carers’ understanding of illness and medication and addresses concerns or problems with medication
17: The CRT provides access to psychological interventions
24: The CRT helps plan service users’ and service responses to future crises
37: The CRT can access a range of crisis services to help provide an alternative to hospital admission for service users experiencing mental health crisis
38: The CRT provides frequent visits to service users
What do the results tell us about the fidelity scale and review process?

• A sensitive measure - 33 items had a range of scores from 1-5
• Feasible and acceptable – 75 reviews carried out nationwide
• Relevant to teams across the country
• Multi-perspective reviewing teams worked well
What do the results tell us about CRT services overall?

- Most teams achieving only moderate fidelity
- All teams are doing some things well: many examples of good practice
- Few teams are putting the whole package together (no teams with mean score of 4+ per item/overall high fidelity)
- Frequent issues – intensiveness of service, psychological and social as well as pharmacological interventions, variety of types of crisis support, carer involvement and support
## CRT Fidelity compared to DH guidelines

<table>
<thead>
<tr>
<th>DH guidelines 2001</th>
<th>Fidelity review results</th>
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<tbody>
<tr>
<td>Time-limited intervention</td>
<td>Item 10 – 87% of teams scored 3 or higher</td>
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<tr>
<td>Multi-disciplinary team</td>
<td>Item 27 – 84% of teams scored 3 or higher</td>
</tr>
<tr>
<td>24/7 service</td>
<td>Item 5 – 75% of teams scored 3 or higher</td>
</tr>
<tr>
<td>Working with families</td>
<td>Item 13 – 56% of teams scored 3 or higher</td>
</tr>
<tr>
<td>Rapid response</td>
<td>Item 1 – 35% of teams scored 3 or higher</td>
</tr>
<tr>
<td>Intensive support</td>
<td>Item 38 – 24% of teams scored 3 or higher</td>
</tr>
<tr>
<td>Preventing future crises</td>
<td>Item 24 – 3% of teams scored 3 or higher</td>
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CORE Resource Pack

This website provides information and online resources to help teams taking part in the CORE study achieve our shared aim of improving the effectiveness of CRT services. We hope CRT managers and staff will explore the resource pack and use those areas most relevant to their team's service improvement priorities.

About the CORE study
Find out more about the CORE study and the research team supporting this study.

News
Find out about what's happening in the teams involved in the study.

How to use the Resource Pack
Find out how to use this site as a service improvement tool.
CORE work has contributed to the Crisis Care Concordat, CQC reports and MIND Acute Care Campaign:

- Literature review findings
- Fidelity scale
- Benchmarking data from managers’ survey and fidelity survey
- Case examples of good practice
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.
Further information

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Study website: [www.ucl.ac.uk/core-study](http://www.ucl.ac.uk/core-study)
Resource pack: [www.ucl.ac.uk/core-resource-pack](http://www.ucl.ac.uk/core-resource-pack)

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