Institution: University College London

Unit of Assessment: 4 - Psychology, Psychiatry and Neuroscience

Title of case study: A programme of research to inform policy and service delivery in acute mental health care

Period when the underpinning research was undertaken: 2000 - 2020

Details of staff conducting the underpinning research from the submitting unit:

Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Sonia Johnson	Professor of Social and Community Psychiatry	Since April 1997 (Prof since Oct 2008)
Brynmor Lloyd-Evans	Associate Professor	April 2011- Present

Period when the claimed impact occurred: 2013-2020

Is this case study continued from a case study submitted in 2014? No

1. Summary of the impact

Mental health-related involuntary hospital detentions have more than doubled in England over the last 30 years, and high rates of readmission following mental health crisis care are recognised as a shortcoming of current care provision. Research at UCL has underpinned the recommendations for national policy change to improve care and reduce detention in the Independent Review of the Mental Health Act in England and subsequent White Paper. A model of community care that reduces readmissions and improves patient experience has been developed, along with a means of defining, measuring and achieving high quality in-community crisis care that is central both to NHS England's programme for improving quality care, and to additional policy initiatives abroad.

2. Underpinning research

In 2018/2019, there were 64,845 admissions to acute mental health inpatient wards. This summary describes findings and impacts from three linked research programmes on mental health crisis care, led by Professor Johnson and Dr Lloyd-Evans at UCL.

1) The UCL team have conducted a programme of research over two decades examining ways of diverting people from acute hospitalisation. Crisis Resolution Teams (CRTs) are a service model that has been implemented internationally and in all English health care regions since they were mandated in the NHS Plan (2000). CRTs provide brief periods of intensive home treatment as an alternative to hospital admission for people in mental health crisis. The North Islington randomised controlled trial (**R1**) evaluated this model at the time of its introduction and demonstrated that CRTs reduce inpatient admissions. Odds ratios for being admitted for those in the CRT-treatment group compared to a Treatment As Usual (TAU) control group were 0.19 (CI 0.11-0.32) at eight weeks follow up and 0.20 (CI 0.12-0.34) at six months. In the trial, inpatient bed use (mean bed days over six months follow up) was correspondingly reduced to 16 per patient in the CRT group, compared to 35 in the TAU control group. Service users' satisfaction with acute care was 1.6 points higher in the mean score on the questionnaire for the treatment group on the Client Satisfaction Questionnaire scale at eight-week follow-up. An accompanying economic evaluation by the UCL team using data from the trial shows that CRTs are cost-effective. When in-patient costs were included, CRT-care saved GBP2,438 per patient (90% CI 937-3,922) over the six-month follow-up period after adjusting for the baseline costs. The research team also investigated the effectiveness of other adjunctive models of crisis care in reducing admissions and improving patient experience.

2) Following this trial, the UCL team conducted two studies (making up the CORE programme), focused on refining the CRT model and improving quality of crisis care.

First was a series of national surveys to describe service provision and variation in crisis care and generate benchmarking data (**R2**). Informed by a systematic review and a national programme of qualitative research with multiple stakeholders, the following were developed: a model of best practice, a fidelity scale and an accompanying quality assessment process for CRTs; the latter were previously underspecified as a service model in research and policy guidance (**R3**). A set of service improvement resources for CRTs were developed and tested in a multi-site cluster randomised trial of 25 CRTs. The service improvement programme was effective in improving CRTs' model fidelity and reducing inpatient admissions by 12% (incidence rate ratio, IRR 0.88 (CI 0.83-0.94)) and bed use by 4% (IRR 0.96 (CI 0.95-0.97) (**R4**). The research generated an evidence-based model of how to achieve and sustain high quality in community alternatives to hospital.

The second CORE programme study (informed by qualitative stakeholder interviews and two systematic reviews of relevant literature) developed, piloted and evaluated a peer-supported self-management programme for people leaving acute care, designed to support recovery, improve continuity of care, and reduce readmissions to crisis care. In a trial involving six NHS sites, the programme proved effective in reducing readmissions from 38% in the control group to 29% in the treatment group (odds ratio 0.66, 95% CI 0.43–0.99) over one year follow-up (the primary trial outcome) and increasing service users' satisfaction with care (**R5**).

3) Focusing on hospital-based acute care, in 2017-19 the research team were commissioned by the Department of Health and Social Care through the NIHR Mental Health Policy Research Unit to conduct a national review of the legal frameworks and process for involuntary admission to hospital to support the work of the Independent Review of the Mental Health Act (**R6**). The UCL team's research consisted of:

i. systematic reviews of crisis planning interventions; compulsory community treatment; social and clinical predictors of detention; interventions to reduce detentions; and service users' and carers' experiences of detention
ii. evidence syntheses and model building to understand international variation in rates of detention, and the rising rate of detentions in England since 1983.

3. References to the research

[R1] Johnson, S., Nolan, F., Pilling, S., Sandor, A., Hoult, J., McKenzie, N., White, I. R., Thompson, M., & Bebbington, P. (2005). Randomised controlled trial of acute mental health care by a crisis resolution team: the north Islington crisis study. *BMJ*, *331(7517*), 599. doi:10.1136/bmj.38519.678148.8F

[R2] Lloyd-Evans, B., Lamb, D., Barnby, J., Eskinazi, M., Turner, A., & Johnson, S. (2018). Mental health crisis resolution teams and crisis care systems in England: a national survey. *BJPsych Bulletin, 42(4*), 146-151. doi:10.1192/bjb.2018.19

[R3] Lloyd-Evans, B., Bond, G. R., Ruud, T., … & Johnson, S. (2016). Development of a measure of model fidelity for mental health Crisis Resolution Teams. *BMC Psychiatry*, *16(1*), 427. doi:10.1186/s12888-016-1139-4

[R4] Lloyd-Evans, B., Osborn, D., Marston, L., … & Johnson, S. (2020). The CORE service improvement programme for mental health crisis resolution teams: results from a cluster-randomised trial. *The British Journal of Psychiatry*, *216(6*), 314-322. doi:10.1192/bjp.2019.21

[R5] Johnson, S., Lamb, D., Marston, L., Osborn, D., … & Lloyd-Evans, B. (2018). Peer-supported self-management for people discharged from a mental health crisis team: a randomised controlled trial. *Lancet*, *392(10145*), 409-418. doi:10.1016/S0140-6736(18)31470-3

[R6] Wessely, S., Lloyd-Evans, B., & Johnson, S. (2019). Reviewing the Mental Health Act: delivering evidence-informed policy. *Lancet Psychiatry*, *6(2)*, 90-91. doi:10.1016/S2215-0366(18)30477-2

Grants supporting the research reported in these outputs:
[R1] "The Islington Crisis Studies (1999-2005)": Joint CIs: S. Johnson, S. Pilling, Funding for programme GBP205,000 total from Department of Health and various local sources

[R2-5] "Optimising team functioning, preventing relapse and enhancing recovery in Crisis Resolution Teams: the CORE Programme" NIHR Programme Grants for Applied Research: GBP1,993,257. CI: Sonia Johnson (2011-2017) [Sponsor: Camden and Islington NHS Foundation Trust]
[R6] "NIHR Mental Health Policy Research Unit" NIHR Policy Research Programme. Director: Sonia Johnson GBP5,000,000 (2017-22)

4. Details of the impact

This body of research has provided crucial evidence to change national and international policy and practice in mental health crisis care, with resulting benefits for patients (in particular reduced use of hospital detention) and significant cost savings to the NHS.

Impact on UK mental health policy

The UCL team worked closely on the Independent Review of the Mental Health Act (MHA Review) launched by the UK Government in 2017. The MHA Review was specifically tasked with addressing the steeply rising rate of detentions in England and the ethnic inequalities in rates of detentions, and to provide recommendations for modernising the legal structures and processes for detention, most of which are unchanged since the 1983 MHA. As well as co-ordinating specifically commissioned research **[R6]**, they provided expert advice to committees and working groups in areas including 'Crisis Planning Intervention', 'Compulsory Community Treatment to Prevent Readmissions' and 'Understanding Increasing Rates of Detention'. Their work is contained in the 40-page research summary included in the Review Report *Modernising the Mental Health Act* **[S1]**. This summarised nine research studies completed by the UCL team (eight evidence reviews and an analysis of health records – all subsequently published as scientific papers, including a summary of the report itself as **[R6]**), covering reviews of interventions to reduce detentions, risk factors for being detained, international comparisons of legal systems and detention rates, and the nature of and patterns in the rise in detentions in England. "*As a result, the [review] was directly informed by research evidence to an unprecedented extent*. […] *This body of research helped shape the Review's recommendations and strengthened the case for policy change*" **[S2]**.

Specific examples of recommendations underpinned by the UCL team 's research are **[S2]**:
i) The recommendation that patients at risk of detention should routinely be supported to write Advance Choice Documents.
ii) Recommendations for increased limits and safeguards for the use of Community Treatment Orders in England.
ii) A clear list of recommendations including enhanced rights for patients to: advocacy and choice over who acts as their nominated relative; a clear treatment plan early in detention; and challenge specific treatments while detained.

Recommendation i) was immediately accepted by Government on the day of the Review launch, and in the 2019 Queen's speech the Government committed to legislating to implement all the recommendations from the MHA Review, leading to the publication of a White Paper in January 2021.

The programme of research for the MHA **[R6]** also established important evidence gaps in this field, including**:** how to arrest the rising rate of detentions in England; understanding and improving the experiences of detained patients from Black and minority ethnic groups, and improving carers' experiences – three areas prioritised in a subsequent NIHR research call. These were reinforced and prioritised through a public event and online survey organised by Johnson through the Mental Health Policy Research Unit in March 2019, generating a list of priorities shared with Department

of Health and Social Care policy leads. This has led to a GBP4,000,000 DHSC-commissioned research call for *"research to address gaps in the evidence base as identified through recommendations arising from the Independent Review of the Mental Health Act (MHA)*" **[S3]**.

Impact on national and international practice, guidelines and resources

The UCL research is cited in the NICE 2014 *Schizophrenia Guidelines (CG178 Psychosis and schizophrenia in adults: prevention and management* **[S4]**; as evidence of the patient benefits and cost-effectiveness of CRTs, the UCL randomised controlled trial **[R1]** underpins its recommendation that CRTs should be provided in every catchment area as an alternative to inpatient admission. The research also led directly to new recommendations for peer support and manualised self-management programmes in mental health **[S4]**.

The research has been used by NHS England to evidence national practice and resource allocation. According to NHS England's Mental Health Crisis Care Lead, the Spending Review for Mental Health in 2015 was nearly completed, with no commitments around crisis care. "*At the time it was extremely challenging to make the case for anything for mental health without a clear evidence base and 'invest to save' case. I was very grateful to be able to use the CORE study and associated systematic review to provide evidence that crisis teams did have intended impact where implemented in full […]. Through this we were able to use the CORE study to make the case to the Treasury for funding to implement all crisis teams to a high fidelity"* **[S2].** This resulted in allocated funding in the spending review of GBP419,000,000 for CRTs and 'crisis alternatives' over four years from 2017/18, including GBP69,000,000 available through Clinical Commissioning Group baselines in 2017-2019 **[R5].** Evidence from the fidelity study **[R4]** was used successfully in the modelling for this exercise, showing that, where implemented to high fidelity, patient experience improved and hospital admissions decreased, and that the issue lay not with the Crisis Team Model but in the failure to implement and resource them as intended. The research team helped distil the key findings into simple clear messages for commissioners – "*This clarity has now supported use of ringfenced transformation funds – with every single area confirming that they will implement and resource teams to high fidelity by 2021"* **[S2]**. NHS England has used the CORE Fidelity scale in several policy and guidance documents **[S5]** as a target to drive service improvement, including the Crisis Care Concordat, NHS *Implementing the five-year view for mental health* and *Crisis and Acute Care for Adults*. These reports provided a national agreement between services and agencies involved in the care and support of people in crisis, and highlight additional funding for CRTs and 'crisis alternatives' to implement best practice, in line with CORE CRT fidelity standards; "*With significant restrictions […] on being able to publish new NHSE guidance, being able to provide a simple link to the fidelity scale was even more helpful. I know that this has led to fidelity reviews across the country*" **[S2]**.

The research has generated increased resourcing for crisis and post-crisis support. Local crisis care clinical leads report using the CRT fidelity scale and service improvement programme trial and resource pack to construct business cases for additional resources, and to inform and support service improvement initiatives within CRTs. The peer-supported self-management programme trial influenced them to retain and expand peer support resources, design their training, and define their role **[S2].** Cardiff and Vale University Health Board (Wales) have introduced the intervention to their early intervention in psychosis team to a positive response and are recruiting a peer support worker and building the plan into team performance measures **[S6].**

The research has also influenced practice internationally. The CORE CRT Fidelity Scale has been recommended in an international review of fidelity measures conducted under the US Agency for Healthcare Research and Quality's Evidence Based Practices Program **[S7]** as the only tool suitable for measuring good practice in mental health crisis care. UCL's evidence base for CRTs has led to national policy programmes and, crucially, the inclusion of crisis home treatment in health insurance schemes in Switzerland and Germany **[S2]**. The University of Sydney (Australia) have begun adapting the peer-supported self-management workbook to an Australian setting, although the work has been delayed by the COVID-19 pandemic **[S6]**.

Impact of reduced readmissions

The high rates of readmission following mental health crisis care are recognised as a shortcoming of current acute mental health care provision. The CORE peer-supported, self-management programme helped significantly reduce readmissions following CRT care in six study sites from 38% to 29%. As well as providing a much better outcome for the patients involved, this resulted in GBP270 in cost savings (using 2018/2019 values) for each person who received the intervention (including the cost of training and supervision for the peers delivering the intervention). In the 2018/2019 year there were 64,845 admissions to acute mental health inpatient wards. Assuming that people who are admitted have 1.5 admissions per year, ~43,000 people had an admission to an acute mental health ward in 2018/2019. On this basis, if the intervention were to be rolled out across the NHS England, and all 43,000 people were given the intervention, this would translate to cost savings of GBP11,600,000 per annum **[S8].**

5. Sources to corroborate the impact

[S1] *Modernising the Mental Health Act: Independent review of the Mental Health Act 1983*. Department of Health and Social Care. Dec 2018 (p248-290). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/778897/Modernising_the_Mental_Health_Act_-_increasing_choice__reducing_compulsion.pdf

[S2] Testimonials from the Mental Health Act Review Chair, NHS England Mental Health Crisis Care Lead, three UK local crisis care clinical leads and clinical academics in Switzerland and Germany confirming the importance of the evidence base for CRTs established by UCL research for introducing CRTs in policy and practice in their national health systems

[S3] NIHR Policy Research Programme themed call for research to improve experience and outcomes of compulsory admission, to meet evidence gaps identified by the MHA Review. https://www.nihr.ac.uk/documents/improving-patient-experiences-and-outcomes-under-the-mental-health-act-research-specification/23257

[S4] *NICE Guideline for the treatment and management of psychosis and schizophrenia in adults CG178*. NICE. 2014. (pp. 2, 7, 207, 527). https://www.nice.org.uk/guidance/cg178/evidence/full-guideline-490503565

[S5] NHS England recommendations of the CORE CRT fidelity scale as a model of good practice for Crisis Resolution Teams (collated)

[S6] Emails from clinical leads and clinical academics in Wales and Australia confirming use of the findings.

[S7] Bond, G. R., Drake, R. E., McHugo, G. J., Rapp, C. A., & Whitley, R. (2009). Strategies for improving fidelity in the National Evidence-Based Practices Project. *Research on Social Work Practice*, *19(5)*, 569–581. doi: 10.1177/1049731509335531

[S8] Emails from Associate Professor of Health Economics at UCL showing calculations of savings.