Final report

February 2017

Innovating for Improvement

Using Eye Movement Desensitization and Reprocessing (EMDR) therapy with patients with acute mental health difficulties

Berkshire Healthcare NHS Foundation Trust

The Health Foundation

About the project

Project title: Using Eye Movement Desensitization and Reprocessing (EMDR) therapy with patients with acute mental health difficulties

Lead organisation: Berkshire Healthcare NHS Foundation Trust

Project lead/s: Simon Proudlock

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Part 1: Abstract

Timely intervention for an individual experiencing a mental health crisis is imperative to help prevent death by suicide and to facilitate positive mental health. Many people who are discharged from acute wards or Crisis Resolution and Home Treatment Teams (CRHTTs) are left on waiting lists for further psychological treatment – with waiting times that can range from three months to over a year. If the person has a trauma-based problem, this can lead to repeated crisis and continued destabilisation.

Eye movement desensitisation and reprocessing (EMDR) therapy has a strong evidence base as a trauma-focused psychological treatment, particularly for post-traumatic stress disorder, and the evidence base for treating other psychological distress is rapidly growing. By focusing on an event that the patient perceives as traumatic, EMDR can quickly and effectively reduce the symptoms causing distress (please see appendix 1.1 for full description of EMDR Therapy).

Our project at Berkshire Healthcare NHS Foundation Trust used EMDR therapy to treat individuals who are on an acute ward or who are under the care of the CRHT in order to alleviate their trauma symptoms. Patients who presented with a high level of clinical risk were provided with psychological therapy in a safe and supportive environment. EMDR has not previously been used in an acute setting.

We aimed to implement EMDR in an innovative way to increase patient safety by reducing the symptoms and effects of trauma measured by four psychometric questionnaires and thus reduce suicidality. We also aimed to provide costs savings to our organisation by targeting 'revolving door patients'.

The project aims were achieved by offering immediate access to specialised treatment and ensuring continuity of care between acute wards and the community. We demonstrated a reduction in trauma symptoms, anxiety and depression as well as suicidality. We also revealed that patients confidence in managing their mental health increased and demonstrated cost savings by reducing length of care spells, the need for further psychological and pharmacological treatments in the community, as well as reducing reliance and use of mental health services.

Overall the initial aims of the project have been met and in some cases exceeded.

We have been successful in:

- Treating 70 patients and demonstrating a strong case for the use of EMDR therapy with clients in an acute mental health crisis.
- Revealing that therapy with this client group does not increase clinical risk but in fact reduces the desire for suicide, anxiety, depression and PTSD symptoms to a ***clinically significantly level***.
- Demonstrating an increase in clients' confidence in managing their mental health resulting in a reduction in reliance on services, with the majority of patients treated being discharged from Mental Health services

- Providing a cost saving of over £100,000 by reducing the need for inpatient beds, CRHTT support and further psychological therapy

Despite the many successes of the project, we encountered numerous challenges. This included other professionals' adversity to risk taking and therefore an initial lack of support for the project. We overcame this through education and dissemination of the projects results through MDT's and other events through the organisation. Another challenge was that of overcoming the barriers to organisational change and trying to implement a new service and way of working. This was challenged through the support of key influencers such as service managers, locality directors as well as the CEO.

The duration of the project, facing challenges and endeavouring to overcome barriers created an environment in which we were able to learn from these encounters. During the next stages of the project we will expand the team, using roles such as a project / service manager as well as administration support to enable efficiency within the service and allowing a greater number of clients to access the treatment. We will also ensure a cohesive inclusion / exclusion criteria to ensure equality and reduce any possible risks.

We are hopeful that the clinical significance of our results so far can be used as a basis for further research, collaborating with the regions Clinical Trials Unit at the University of Reading to begin to build an evidence base for the use of EMDR Therapy within acute mental health.

Part 2: Progress and outcomes

What we did

Weekly MDT meetings within acute mental health services (CRHTT and inpatient wards) discuss patients suitable for psychological therapy and identify a suitable referral pathway. Little psychological intervention is offered within these acute services and clients are usually referred to specialist services or secondary care psychological services to receive therapy, including EMDR, once they are out of an acute mental health crisis. Due to the high demand for these services, there can at times be a significant wait for the initial assessment.

The project lead has worked within acute mental health services for some time and identified a greater need for intervention at the point of crisis. With the innovation grant, he was able to set up the project, led by himself, a Consultant Psychologist and EMDR Consultant and Supervisor, two EMDR therapists, a psychiatrist trained in EMDR and an assistant psychologist.

We worked closely with multidisciplinary teams consisting of mental health nurses, social workers, psychologists and psychiatrists to identify patients who present with a trauma picture (see appendix 1.2 and 1.3 for staff and patient leaflets). We received a total of 105 referrals within the year; the majority of these have come from the CRHTT (*n*=75) however we saw a steady increase in referral numbers from the acute wards towards the end of the project (*n*=27) as well as from other sources (*n*=3; Appendix 1.4 graphically represents this data). Our team would then further ascertain if they may benefit from EMDR Therapy through case review and assessment. We initially offered treatment to 70 patients, however some declined and others withdrew (Appendix 1.5 shows the ratio of assessment outcome).

Generally patients were screened and assessed the same week they were referred, with treatment starting within days of the initial assessment. One patient referred from the ward was assessed on the day of referral and began treatment within 48 hours. Patients were then treated intensively with between 2-3 treatment sessions per week, approximately 1.5 hours in duration. EMDR Therapy was used to expose the client to the traumatic memory in order to desensitise them to the distress and reprocess negative cognitions around the trauma.

Treatment ended when the patient's subjective units of distress reduced significantly or when progress was no longer being made. The number of sessions needed ranged from 2 to 34, with the majority receiving less than 12 sessions (*n*=44, see appendix 1.4 for further details). This compares favourably with the average session count of 16-20 sessions seen in secondary care services and specialist services. Appendix 1.6 highlights some of the cases and we have provided treatment for.

Assessment and treatment was delivered in an out-patient setting, on the acute ward, on a psychiatric intensive care unit or occasionally in a patent's home. One patient was seen at their GP surgery. When patients moved between wards or to the community or were discharged from acute services, treatment was not affected and continuity was maintained as long as the patient felt well enough to engage.

Four main psychometric outcome measures were used to quantify the success of the treatment. The Hospital Anxiety and Depression Scale (appendix 1.7) measures the extent to which the patient had felt anxious and depressed within the previous seven days. The Impact of Events Scale – Revised (appendix 1.8) measured the impact the trauma was currently having on the person by measuring levels of how intrusive the memory is, how avoidant they are at looking at the memory, and how hyper vigilant they are when thinking about the trauma.

We also used Joiner's Interpersonal Needs Questionnaire (appendix 1.9) to assess the client's feelings of burdensomeness and belonging which can act as indication of the desire for suicide. Lastly, the Mental Health Confidence Scale (appendix 1.10) was used to determine the clients' confidence in their ability to manage their own mental health. We asked the patient to complete these before the treatment begins, at the end of treatment and at 3, 6 and 12 months post treatment during follow up appointments. This enabled us to assess the initial efficacy of the treatment as well as whether it benefits the patient long term.

What we found

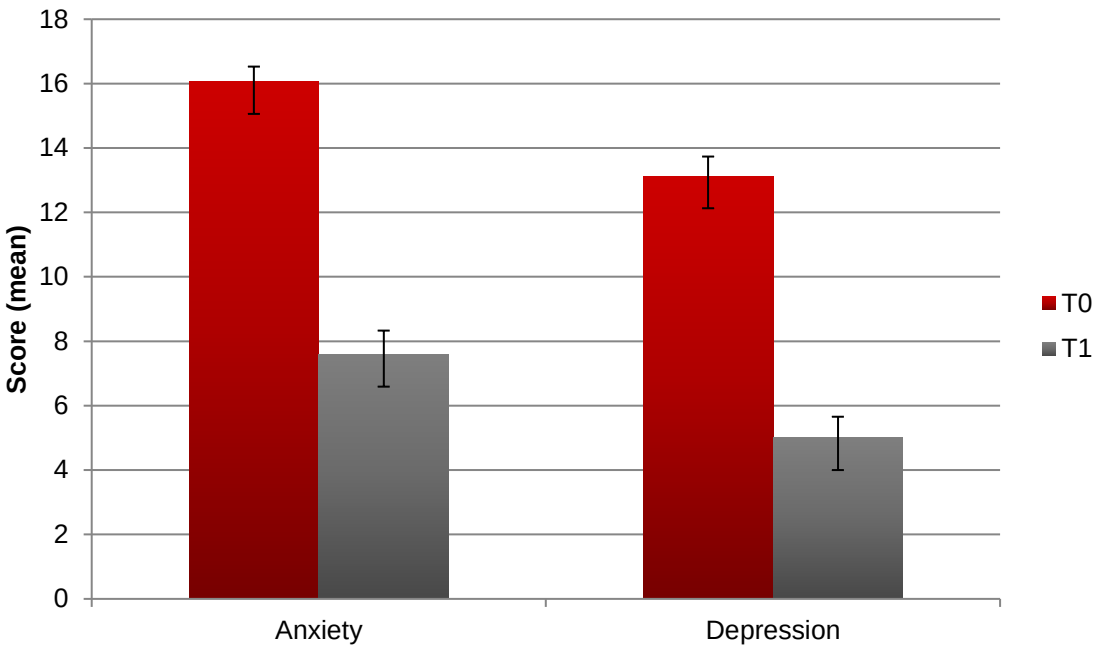
The graphs and tables below demonstrate treatment outcome, highlighting a significant improvement in psychometric scores after treatment. At present we have data for how clients benefitted from treatment initially, however due to the short term nature of the project we have not fully completed follow ups. Additionally, the initial two sets of psychometrics were obtained without difficulty but we have found it difficult to maintain contact with patients for review appointments, with some disengagement with the project following treatment and therefore will struggle to measure the long term progress of the treatment.

Table 1. Clinical measures pre and post treatment

Psychometric measure	T0 (Pre-treatment mean score)	T1 (Post-treatment mean score)	*t*-test (*t* value)
Anxiety (HADS)	16.06	7.59	10.86***
Depression (HADS)	13.13	5.	9.11***
Trauma symptoms (Impact of events scale)	61.07	21.78	13.51***
Mental health confidence scale	41.15	69.1	-9.74***
Perceived burdensomeness (suicidality - Interpersonal needs questionnaire)	43.16	22.67	9.26***
Thwarted belonging (suicidality – interpersonal needs questionnaire)	41.78	22.72	7.93***

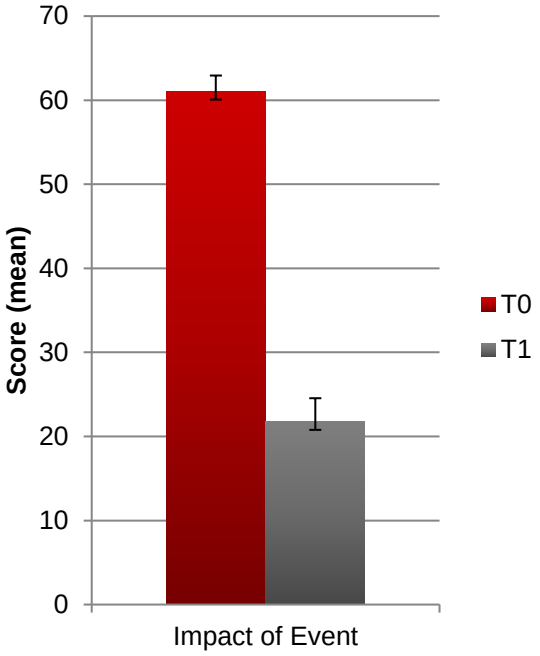
Table 1 highlights the group means for pre-treatment (n=54) and post treatment (n=41) conditions for each outcome variable. The final column shows the results of a paired samples *t*-test between each T0 and T1 score. *** shows a significance level of $p<.001$

Graph 1. Hospital Anxiety and Depression scale pre and post treatment



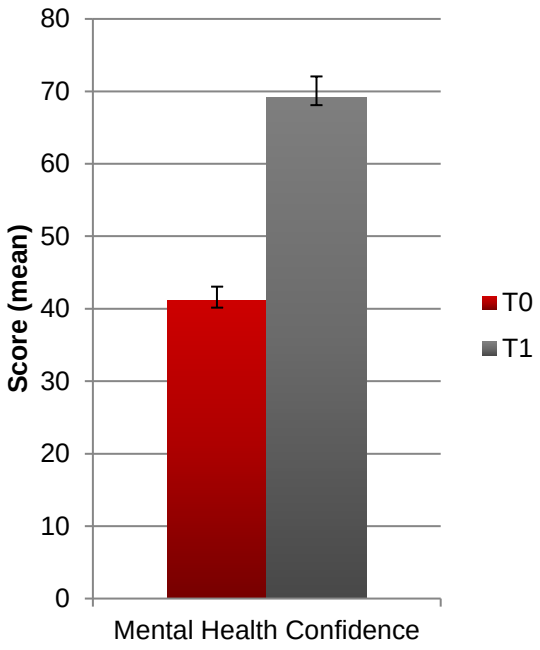
Graph 1 shows the comparative group means and standard error bars for pre-treatment T0 (*n*=54) and post treatment T1 (*n*=39) conditions for Anxiety and Depression the Hospital Anxiety and Depression scale

Graph 2. Impact of Events scale pre and post treatment



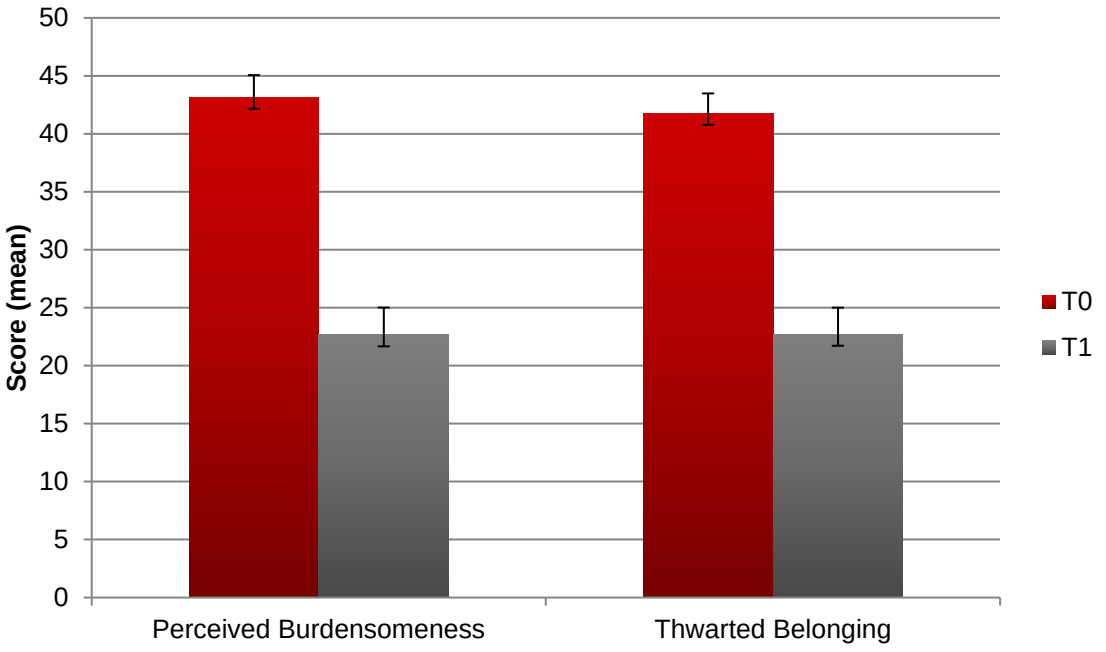
Graph 2 shows the comparative group means and standard error for pre T0 (*n*=55) and post T1 (*n*=40) treatment scores for the impact of events scale

Graph 3. Mental Health Confidence scale pre and post treatment



Graph 3 shows the comparative group means and standard error for pre T0 (*n*=54) and post T1 (*n*=40) treatment scores for the mental health confidence scale

Graph 4. Interpersonal needs questionnaire pre and post treatment



Graph 4 shows the comparative group means of pre T0 (*n*=50) and post T1 (*n*=39) treatment scores

and standard error for the Interpersonal Needs Questionnaire

As well as the psychometric measures of efficacy, we used qualitative data such as patient and professional feedback to assess the project's success. This helps us evaluate not only the effectiveness of the treatment in terms of quantifiable measurements but how the treatment really impacts the clients, their family and other professionals working with them. This enables us to ensure person centred care is always at the centre of our project.

"I've been cured of my nightmares and PTSD in three sessions"

"EMDR treatment has absolutely changed my life"

"it has enabled me to function normally without any medication for which I am very grateful"

"it really has lifted a huge weight of depression, anxiety and guilt that I've been carrying for almost 40 years"

Patient's quotes

Feedback from both patients and professionals has been increasingly positive. A patient's medical doctor felt that the client had improved with EMDR therapy, seeing an improvement in the patients' anxiety and hostility and an increased cooperation with her treatment. Another patient stated that after treatment he felt "a thousand times better". We have also had positive feedback from the inpatient service manager where ward staff felt EMDR therapy was beneficial to clients receiving it and were advocating them staying on the ward to continue the treatment. This speaks volumes towards how we are influencing staff attitudes and challenging the reluctance towards treating patients in an acute setting.

Additionally, we are carrying out an on-going analysis of service utilisation by reviewing patients contact with mental health services 12 months prior to treatment compared to 12 months following treatment (via an audit of their medical records). We also monitor the need for pharmacological treatment before and after treatment during this process. Although this may not be a direct cost saving to our NHS Trust specifically, a reduction in medication would provide a cost saving to the NHS overall and potentially increase patient satisfaction due to preventing the side effects that accompany the medication.

How this compared to our expectations

Although we expected a strong treatment outcome, the extent of this is extremely superior compared to the existing evidence base. Using statistical analysis software (SPSS) to detect whether the differences are reliable and not due to error, all results were shown to be extremely statistically significant (see table 1). It may be accurate to attribute this to the innovation of the treatment where clients are provided access

to treatment at the time of crisis and thus the time of need, however further investigation comparing standard treatment would be required to conclude this.

Additionally we have noticed an early trend forming in the follow ups with a particular client group with a diagnosis of emotionally unstable personality disorder. It is characteristic for some within this client group to have chaotic lives and relationships which causes a higher level of distress than with someone without the illness. Therefore, in follow up appointments, some clients' outcome measures have indicated higher levels of anxiety, depression, distress and suicidality as well as lower confidence in their ability to manage their own mental health. However, the client reports these feelings relating to their *current social situation* and were unable to focus their attention on the trauma due to their heightened distress around their *current* situation. Therefore the validity of this data is questioned but may provide interesting insight and unexpected findings into how EMDR works within this client group.

Another barrier we came across were initial reservations to the project; some ward managers or consultant psychiatrists were reluctant in trying new ways of working, especially as they felt this new treatment may de-stabilise patients and lead to longer in-patient stays. However, the project lead has a good working relationship with most of the major stakeholders in the project, and together with the backing of the Clinical Director for Inpatients and CRHTT, this challenge was soon overcome as professionals witnessed the benefit of the treatment, highlighting the need for a greater evidence base.

Part 3: Cost impact

One of the aims of our project was to demonstrate a cost saving in comparison to the standard treatment pathways.

The project has been able to demonstrated these cost savings in a number of ways:

- The innovation is less costly than standard treatment pathways
- Patients have been discharged from mental health services, needing no onward referrals
- Patients have been discharged from mental health services more quickly than they may have been without the treatment
- Following treatment, patients who remained under the care of mental health services have reduced their reliance on services and thus reduced number of contacts.
- Reduction in medication usage
- Reduction in the need for ambulance, A & E and police involvement

Cheaper than treatment as usual

"Despite intense support by a Care Co-ordinator and Crisis Team hospital admission was considered and highly likely if she had not been able to commence EMDR work under the innovation project."

Senior Mental Health Practitioner
Community Mental Health Team

Initially, we have estimated the cost of our service to be superior to treatment as usual. Costs of alternative treatment pathways were calculated based on the unit costs from the report by Personal Social Services Research Unit (PSSRU, 2015). Below is a table outlining these costs.

Table 2. Unit reference costs of treatment episodes by treatment service

Treatment	Average cost of treatment (per patient unless otherwise stated)
EMDR Innovation Project	*£1000*
Individual Psychological Therapy	£1960
Group Psychological intervention	£6840 (for 20 group sessions)
Berkshire traumatic stress service	£2202
IAPT	£1680
Community Mental Health Team	£2426
Crisis Resolution and Home Treatment Team	£30,167
Acute mental health inpatient ward	£11,060 - £14,588 (initial detention for assessment and treatment under section 2 of the mental health act)

Table 2 shows the average per patient cost for the EMDR Innovation project compared to local standard treatment services. Cost estimations are taken from the Personal Social Services Research Unit Cost report (2015; Appendix 1.11)

No need for further treatment

Upon initial assessment, standard treatment pathways were identified and recorded. After treatment ended, clients were reassessed in terms of their need for further treatment and referrals were based upon this. The table below outlines the difference in initial treatment pathway outlined and actual referrals made and therefore calculates the subsequent cost saving.

Table 3. Analysis of EMDR cost savings against the standard treatment pathway indicated

Treatment pathway	Initial no. referrals identified	Actual referrals made	Cost saving
Secondary Care Psychological Therapy	29	1	-£54,880
Berkshire Traumatic Stress Service	9	1	-£17,616
Community Mental Health Team	6	1	-£12,130
IAPT	6	0	-£10,080
Total	***50***	***3***	***-£94,706***

Table 3 shows the estimated cost savings the project has made from withdrawing / no longer needing to make onward referrals to standard treatment pathways following the client being discharged from the project.

Speedy discharge

"We believe that [without the EMDR project] discharge would have been delayed as [alternative] services would have has long waiting lists"
Assistant Psychologist, CRHTT

"Many thanks for seeing the patient for EMDR. He is doing well and stable and is now ready for discharge"
Inpatient Consultant Psychiatrist

Another saving highlighted above was that patients were discharged from either the CRHTT or the Inpatient Wards quicker than they would have been without the EMDR treatment. This cost saving is rather subjective and difficult to quantify, as it has

relied on mental health professionals making judgements. They have done this in two ways; compared the individual's length of care spell with their previous care spells (for revolving door clients) and comparing the length with the overall average length of care. This estimation comes with several limitations and thus we have not included probable figures for this particular cost saving.

As an example however, a patient who was able to be discharged from an acute ward 5 days earlier would have potentially saved the Trust between £1750 and £2000. Safe early discharge from the wards decreases the demand for beds which in turn can have a knock on effect on reducing out of area bed placements.

Sustained reduced contact

"Treating the client so quickly has stopped a chronically unwell patient from constantly re-presenting to services and without a doubt prevented another admission"

Senior Mental Health Practitioner, CRHTT

Additionally, a projected cost saving that comes with both a reduced reliance on services and complete discharge from mental health services is the amount of contact following treatment. We are monitoring and comparing contact with mental health services for 12 months before and after treatment. As the project, and client treatment, has only recently come to an end, we are unable to provide this information at this stage.

Reduced medication usage

Another cost saving that has been realised following the ending of the project is the extent to which clients are reliant on medication. It has been identified in many end of treatment and follow up appointments that patients have not only reduced contact with services, but also reduced the dose or amount of medication they are taking. Although this is not a direct cost saving to our organisation, it highlights a national cost saving and benefit to statutory healthcare.

Reduction in the need for ambulance, A & E and police involvement

Following treatment under the project a couple of patients needed less involvement with emergency services and presented less frequently to A & E. Additionally, the police were needed less frequently to utilise section 136 powers. Although this is a difficult cost saving to quantify, any treatment that can help an individual manage their mental health without the need for emergency intervention demonstrates a significant saving to pressurised A & E departments and emergency services.

Challenges

A limitation to our service costing is that due to the initial project being relatively small scale, it was able to be integrated into the existing psychology department, using resources and clinic rooms. If the project was to continue on a larger scale,

which will be discussed further in the subsequent section, it would require the consideration these overheads in the budget.

Summary

Analysing the true cost savings by this project is a complex task – savings have come from a reduction in the pressures on inpatient beds and CRHTT involvement, and by patients exiting mental health services after treatment. Secondary savings have been realised by reducing the need for ambulance, A & E and the police for some of our more complex patients. *Overall, we feel that for every £1000 spent on treatment we have been able to realise £3000 of savings for the NHS.*

Part 4: Learning from your project

Overall the initial aims of the project have been met and in some cases exceeded. We have been successful in:

- Treating 70 patients and demonstrating a strong case for the use of EMDR therapy with clients in an acute mental health crisis.

- Revealing that therapy with this client group does not increase clinical risk but in fact reduces the desire for suicide, anxiety, depression and PTSD symptoms to a clinically significantly level.

- Demonstrating an increase in clients' confidence in managing their mental health resulting in a reduction in reliance of services, and the majority of patients being discharged from Mental Health services

- Providing a cost saving of over £100,000 by reducing the need for inpatient beds, CRHTT support and further psychological therapy

- Demonstrating the feasibility of the innovation to influence new ways of working

However, attempting to implement a new and innovative service to a successful level in a short one year period came with many challenges that required efficient resolution.

Initially referrals to the project were low. As we aimed to treat a large number of clients intensively, we relied on other services and colleagues to take time from their roles to identify and refer suitable clients. This was especially difficult for staff on inpatient wards that were used to a very different model of working, involving little psychological intervention. During the initial stages of the project some ward managers and consultant psychiatrists were resistant to trying new ways of working, especially as they felt this new treatment may de-stabilise their patient.

This continued across services where on one occasion, a community mental health team asked for a client to be discharged from the project after returning to the community as they perceived them as too high risk. This took a great deal of time and effort to challenge and relied on our team making good working relationships with colleagues. We used education as a tool to deflate concerns and presented the preliminary findings of the project in MDT meetings as well as the internal research club and consultant psychiatrist forum. Being able to showcase key cases and evidence for the innovation, along with the support of the clinical director, allowed professionals to witness the benefit and overcome their concerns.

Other barriers were also faced throughout, some that were more difficult to overcome, and would need to be considered in the sustainability of the project. Due to the ambitious aims, limited time and budget, a small team were employed part time to ensure these targets were met. This meant that the lead consultant psychologist held a caseload of clients, supervised the other therapists, managed

the project as well as completed most of the administration support. Extension of the project would benefit from a dedicated senior administration to allow the project lead to focus more on clinical activity.

Physical capacity to see clients was also limited due to the team being based at only one location in a geographically large trust. Clients under the care of CRHTT or on the inpatient wards would be from each locality across Berkshire. This meant that clients that would have to travel to appointments would decline treatment and those discharged from the wards early would find it difficult to complete the course of intervention. However, the project aimed to test the efficacy and feasibility of the service as has demonstrated a strong demand for the innovation and the aim would be to make the service available across the east and west of Berkshire.

As previously discussed, a common theme has emerged with a specific diagnosis of emotionally unstable personality disorder. This chaotic presentation resulted in deterioration in scores on outcome measures. The clients report these feelings relating to their current social situation and were unable to focus their attention on the trauma due to their heightened distress around their *current* situation. Despite the validity and reliability of this data being questionable, it may provide interesting insight and unexpected findings into how EMDR works within this client group.

Within a large organisation such as the NHS, introducing innovation can be difficult and not without challenges. However within such organisations, innovation is also key to ensuring effective and safe, patient centred care. We have learned, therefore, that it is essential to include key stakeholders in the development and implementation of the service, enlist the support of key influencers within the organisation and ensure results and benefits are disseminated widely.

Overall, we consider the project to have been a success and believe it has demonstrated a strong case for its feasibility as a sustained and permanent service. Although these findings have been demonstrated within the Berkshire area alone, similar issues are experienced nationally within NHS mental health services and therefore believe the innovation could be spread nationally. The project has already had a lot of interest from psychologists and other mental health professionals interested in collaborating with the team to pilot a similar service within their NHS Trust.

Part 5: Sustainability and spread

Whilst the project is coming to an end and we are finalising our results, the team have been working hard to ensure the sustainability and continuation of the project as a permanent service within BHFT. Although plans are not yet finalised, progress is well underway. The project and thus a permanent service would rely on a stream of appropriate referrals, and therefore necessitates the collaboration of key stakeholders within the organisation.

The project lead approached the CEO of BHFT to support in overcoming some of the challenges related to sustainability. He presented a business case at the monthly business meeting with good effect; those in the meeting were extremely impressed by the project, its results and cost savings. Discussions and suggestions have been made to imbed the project into the existing psychological therapies and the project lead is now collaborating with senior managers to finalise a way forward.

We hope that the project can also set an example and be spread across other organisations nationally. The team have received extensive interest from other professionals and service users through the information provided on the Health Foundation website. Professionals from Norfolk and Suffolk NHS Foundation Trust are considering similar changes and have been in touch to gain insight on our process, challenges and successes.

We are also disseminating findings and sharing our story with a range of organisations and audiences outside of BHFT. We aim to publish the project and findings in academic journals and use our work as a pilot study to demonstrate feasibility for further research. Using our findings and learning throughout the process will allow us to design a rigorous and controlled research programme to further add to the evidence base which may later inform national policy and guidelines. The team are currently liaising with the University of Reading's Thames Valley Clinical Trials Unit with the aim of conducting a randomised control trial; the gold standard of research!

The project lead and assistant psychologist will also be presenting the findings of the project at several national conferences including the EMDR UK & Ireland annual conference as well as the British Psychological Society annual conference. We are also due to present at the Berkshire Healthcare Foundation Trust academic meeting, to continue to disseminate and increase interest within our organisation. The project has also been shortlisted as a finalist for a HSJ Value in Healthcare award, where we will showcase our work to a judging panel in the forthcoming months.

Spreading the word of the innovation at this stage is crucial to enable our work to be continued. Doing this across several platforms to a varied audience will further increase the awareness and interest in the project. We have highlighted several ways in which we are striving to promote our work and hope that this enables us to continue the project as a sustained service in our organisation and influence those around us to do the same.

Appendix 1: Resources and appendices

Please attach any leaflets, posters, presentations, media coverage, blogs etc you feel would be beneficial to share with others.

Appendix 1.1 – What is EMDR therapy?

What is EMDR Therapy.pdf

Appendix 1.2 – Project leaflet for staff

EMDR Leaflet for staff.pdf

Appendix 1.3 – Project leaflet for clients

EMDR Leaflet for clients.pdf

Appendix 1.4 – Demographics and referrals information

Referral and treatment informatior

Appendix 1.5 – Assessment outcomes

Referral outcomes.pdf

Appendix 1.6 – Snapshot summary of clinical cases

Snapshot of clinical cases.pdf

Appendix 1.7 – Hospital Anxiety and Depression Scale

HADS.pdf

Appendix 1.8 – Impact of Events Scale – revised

Impact_of_Events_Scale_Revised.pdf

Appendix 1.9 – Interpersonal Needs Questionnaire

Interpersonal Needs Questionnaire.pdf

Appendix 1.10 – Mental Health Confidence Questionnaire

MENTAL HEALTH CONFIDENCE SCALE.

Appendix 1.11 – Personal Social Services Research Unit Health and Social Care Unit Costs (2015)

PSSRU cost report 2015