

## **Can Matrix Reimprinting be effective in the treatment of emotional conditions in a public health setting? Results of a UK pilot study**

Keywords: Matrix Reimprinting (MR), Emotional Freedom Techniques (EFT), therapy, emotion, trauma, anxiety.

### **Abstract**

#### **Objectives**

This pilot study was carried out to establish the feasibility and effectiveness of Matrix Reimprinting (MR). A dedicated MR/ EFT service was delivered in a community setting within the National Health Service (NHS) in the metropolitan borough of Sandwell, UK.

#### **Method**

Over a 15 month period, clients accessing the service for a range of emotional conditions were studied. At the start and end of their treatment, clients were asked to complete the CORE10 (psychological distress; main outcome variable), WEMWBS (mental wellbeing), Rosenberg Self Esteem and Hospital Anxiety and Depression Scale (HADS; anxiety and depression) measurement scales.

#### **Results**

Twenty-four clients were included in the MR pilot study, and the mean number of sessions attended was 8.33 (median 6.5). There were both statistically and clinically significant improvements for CORE10 (52% change,  $p < 0.001$ ), Rosenberg Self-Esteem (46% change,  $p < 0.001$ ), HADS Anxiety (35% change,  $p = 0.007$ ), HADS total score (34% change,  $p = 0.011$ ) and a statistically significant improvement for WEMWBS (30% change,  $p < 0.001$ ). All MR clients showed clinical improvements.

#### **Conclusions**

Despite the limited sample size and other limitations, significant improvements were shown. The results support the potential of MR as a cost-effective treatment to reduce the burden of a range of physical and psychological disorders. Further larger studies are called for, with protocols to minimise drop-outs.

Matrix reprogramming (MR) is a recently developed technique that can improve health and wellbeing by allowing clients to access and transform painful memories about traumatic events (Dawson and Allenby 2010). It was evolved from Emotional Freedom Techniques (EFT), a gentle therapy that can be used for a variety of issues. Subjects tap softly with their fingertips on acupressure points (mainly on the head and hands), using a setup statement to define and help neutralise the problem, then a tapping sequence related to the voicing of specific phrases (Craig 2011). MR is an energy psychology technique which incorporates EFT and parts/inner child work, referred to in MR as ECHOs (Energy Consciousness Holograms). Using MR, the client works with the ECHO to release the stress or trauma. A new and positive picture is then created and highlighted, which is used to reprogram the mind with the new information, indicating that the trauma is over (Dawson and Allenby 2010).

MR is particularly effective in helping clients to overcome a variety of serious health and emotional challenges, including traumatic memories, sexual abuse, addictions and phobias (Dawson and Allenby 2010). Although MR, like EFT, can be easily taught and self-administered, MR clients are not advised to use the technique by themselves for extreme issues (Dawson and Allenby 2010).

Research suggesting that EFT may be an efficient and effective intervention for a range of psychological disorders has grown exponentially over the past decade and two systematic reviews have been recently published (Feinstein 2012; Boath, Stewart, and Carryer 2012a). Although there are a growing number of MR practitioners (around 2,500 worldwide) and anecdotal evidence demonstrating the effectiveness of MR for a wide range of issues including: trauma, fibromyalgia, allergies, phobias, pain management, depression, anxiety and, stress reduction, a literature search of nursing, medical and psychological electronic databases using the key terms 'matrix reprogramming' revealed no published clinical studies of MR to date. Other than an unpublished study using MR for civilian survivors of war in Bosnia (Rolling, Boath, and Stewart 2012), the authors are not aware of any other research ongoing or published. This report is therefore the first ever published study of MR.

Sandwell, a metropolitan borough comprising six Towns in the West Midlands, UK, has a population of around 308,000 in an area of 33 square miles and is served by two general hospitals. Sandwell has high levels of social deprivation and unemployment (Sandwell Trends 2013). A formal EFT/MR service for Sandwell was introduced in November 2010. The service was launched as part of Sandwell's Wellbeing Hub Service (Sandwell Wellbeing Hub 2013) and was delivered in the community. The Hub offers a range of services, aiming to create opportunities for clients to maintain and improve their own wellbeing and provide community and primary health care mental health services that are flexible and meet the emotional needs of those living and working in Sandwell. An evaluation of this service was carried out by AS over a 15 month period (Stewart, Boath, Carryer, Walton, and Hill 2013). Though regarded as a pilot study, it was undertaken in the NHS as a "Service Evaluation". In the UK, Service Evaluation is recognised as a method to investigate how well current services or initiatives are working and produce internal recommendations for service development or improvement (NHS Direct 2013).

Although EFT had previously been used by some therapists within Sandwell and elsewhere in the National Health Service (NHS) on an ad-hoc basis, to the authors' knowledge, this was the first service explicitly dedicated to offering EFT/MR within the NHS. As MR is related to EFT (Dawson and Allenby 2010), it was considered appropriate and acceptable to incorporate it into some of the sessions, especially for patients with more serious issues, such as traumatic memories, sexual abuse, bereavement, self-harm and other conditions at the discretion of the practitioner. This pilot study was therefore undertaken to establish the feasibility and effectiveness of MR in this setting.

### **Methodology**

This MR pilot study was part of the larger EFT pilot (Stewart et al. 2013). Clients who received MR were identified and analysed separately. All Sandwell GPs and health professionals were given information about the nature and availability of the service. Clients were also able to self-refer. Referrals were accepted for any condition, providing that clients were aged over 18, and not classed as "vulnerable

adults”, defined as adults who are at greater than normal risk of abuse (NHS Choices 2013).

The therapy was delivered by AS, an AAMET accredited (AAMET 2013) and highly experienced EFT and MR practitioner and health researcher. Prior to the launch of the EFT service, ethical approval for the Pilot Study as a Service Evaluation was secured from both Sandwell PCT and Staffordshire University. All clients were invited to give informed consent to their data being used, but agreeing to participate in the study was not a condition of treatment.

At the start and end of their treatment, clients were asked to complete four measurement scales. The main outcome variable was CORE-10, a measure of psychological distress. It comprises a total of 10 questions covering anxiety (2 questions), depression (2 questions), trauma (1 question), physical problems (1 question), functioning (3 questions - day to day, close relationships, social relationships) and risk to self (1 question). The measure has 6 high intensity/severity and 4 low intensity/severity items (CORE IMS, 2013). Higher scores indicate higher psychological distress, and are categorised as “severe”, “moderate severe”, “moderate”, “mild” or “normal”, as shown in Table 1.

The other measurement scales were the Hospital Anxiety and Depression Scale (HADS; Zigmond and Snaith 1983), Rosenberg Self-Esteem Scale (Rosenberg 1989) and Warwick-Edinburgh Mental Well-being Scale (WEMWBS, 2013). Sandwell CWBT used the online CORE NET system (CORE IMS 2013), and required CORE-10 and WEMWBS scales to be electronically administered at each appointment to track progress and gather routine data; this was part of routine data collection, and separate from the pilot study.

Each client was given a 10-15 minute introduction to EFT initially, then MR was incorporated during the course of therapy. Clients receiving MR were guided through the process by AS. Initial appointments were of up to 90 minutes duration, with each subsequent appointment lasting up to 60 minutes.

Data analysis was undertaken using SPSS v19 (IBM 2010). Mean pre, post and follow-up scores for each measurement scale were compared using paired *t*-tests (or

Wilcoxon Signed-Rank tests for non-normally distributed variables). Further *t*-test and correlation analysis was carried out to test for differences in scores by gender and age. Data for all clients who gave consent were entered into the evaluation and analysed irrespective of whether they had completed their therapy.

## **Results**

A total of 24 clients received MR, and 19 (79%) of them completed their therapy. Only 2 clients were male and the remaining 22 (92%) were female. The mean age for all clients receiving MR was 47(SD=12, range 18-66 years). In all, 19 (79.2%) of clients were White British, two clients were Indian and one client each were: Black British, Pakistani and Mixed Race. The mean number of clinical sessions attended was 8.33 (SD = 9.2, median 6.5; range 3-49). N=21 clients received 9 sessions or less, one client received 12, one received 17 sessions and one received 49 sessions. The main presenting conditions were: anxiety (14; 58.3%) and depression (5; 20.8%). Clients identified up to four additional issues, including traumatic memories, sexual abuse, depression, bereavement and anger. These conditions were not mutually exclusive.

Most of the measurement scales used in this pilot have acknowledged thresholds for clinical “cases”, shown in Table 1.

Measurement Scale	Normal	Case	Range	Notes
CORE-10	<10	11-30	0-30	Higher score = higher psychological distress 11-14="mild"; 15-19="moderate"; 20-24="moderate severe"; 25-30="severe" Clinically significant change = <10 at start & >10 at end
WEMWBS	n/a	n/a	14-70	No threshold for "caseness"; higher score = higher mental wellbeing
Rosenberg Self-Esteem	15-25	0-14	0-30	Higher score = higher self-esteem
HADS Anxiety	<8	8-21	0-21	0-7: Normal 8-10: Cause for concern; monitor for change 11-12: Probable clinical case requiring assessment
HADS Depression	<8	8-21	0-21	0-7: Normal 8-10: Cause for concern; monitor for change 11-12: Probable clinical case requiring assessment

*Table 1. Thresholds for clinical cases.*

MR was used with all clients who reported traumatic memories (7), sexual abuse (3), bereavement (2) and self-harm (1), plus 13 who reported depression. Clinical results are shown in Table 2:

Measurement Scale	Mean score Pre-therapy	Mean score Post-therapy	SD (Difference)	P value (* Significant)	N=
CORE-10	21.9	10.5	6.1	<0.001 *	23
WEMWBS	34.8	49.6	10.8	<0.001 *	22
Rosenberg Self-Esteem	11.0	20.4	6.6	<0.001 *	16
HADS Anxiety	16.1	10.5	4.1	0.007 *	10
HADS Depression	11.1	7.4	5.7	0.07	10
HADS Total	26.8	17.8	8.9	0.011 *	10

*Table 2. Results of inferential analysis pre and post-therapy.*

CORE-10 has a 'clinical cut-off' score of 10; mean CORE-10 scores were far in excess of 10 (caseness) at start and only a little over 10 (normal) at end. HADS scores (for anxiety and depression domains individually) of 0-7 are considered normal, 8-10 indicates cause for concern, while 11-12 represent probable clinical

cases requiring assessment. Both HADS anxiety and depression domains were over 8 at start, but HADS Depression was under 8 at end; this effect was not statistically significant, however. Mean Rosenberg Self-Esteem scores were less than 15 at the start (indicative of low self-esteem), but were in the normal range (15-25) at the end. WEMWBS scores (where higher scores represent higher mental wellbeing) also increased significantly. Some clients did not wish to complete all of the measurement scales, resulting in a limited sample size which prevented further subgroup analysis.

Figure 1 shows CORE-10 scores at the start of therapy, plotted against scores at the end. Each dot represents a client seen by the service who gave consent. CORE-10 scores at the start (left-hand side) are plotted against those at the end of treatment (bottom). Clients shown above the diagonal line improved, while any below the line deteriorated. It can be seen that all clients improved between the two time points.

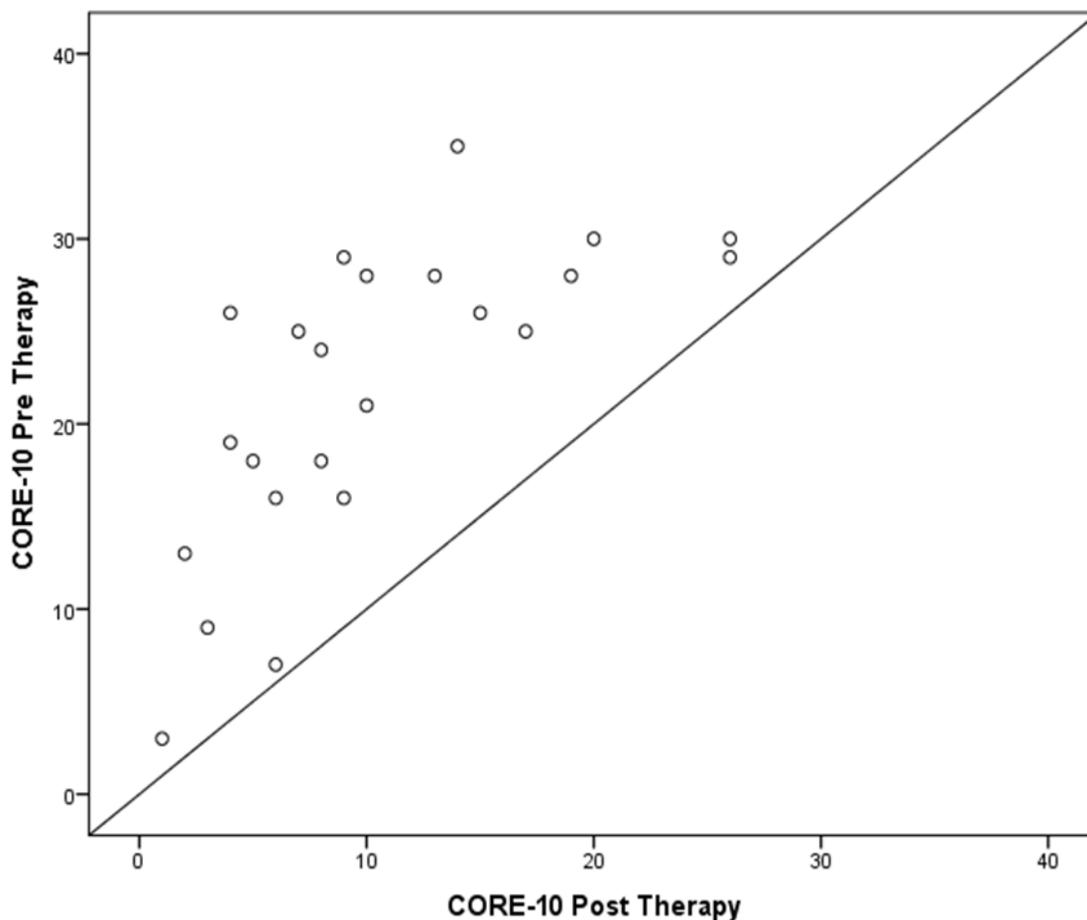


Figure 1. Scatter Plot for CORE-10 scores at start and end of therapy.

## **Discussion**

The practitioner (AS) used MR for all clients who reported trauma (including sexual abuse), bereavement and self-harm. These MR clients may therefore be considered to have experienced emotional issues that were more severe than those who would benefit from EFT alone. Nevertheless, all clients improved and statistically significant differences were achieved for most measurements.

A general risk of having clients talk about trauma is that it will lead to retraumatization rather than desensitization (Van der Kolk, McFarlane, and Weisaeth 1996). This safety issue is minimized with MR as it is based on EFT which is considered safe (Hartmann 2003) and no severe abreactions were experienced by this group of patients.

Few reasons were given for dropout, though the dropout rate was similar to other studies involving EFT on which MR is based (Karatzias et al. 2011 (39%); Boath, Stewart, and Carryer 2012b (33%). However it is worthy of note that some clients declined a follow-up appointment as they felt that their issue had been dealt with and that they no longer needed treatment. Several clients contacted the service to say they would not be attending further appointments because they felt that their issues had been resolved, and were unwilling to attend for follow-up. Future studies should include a protocol for minimising dropouts and loss to follow-up, such as a robust system of tracking, reminders, online assessment facilities and contacting clients to elicit completion of all measurement instruments, including reasons for drop out and other information where required.

## **Limitations of the Pilot Study**

This pilot study was a “service evaluation” (NHS Direct 2013), so no control groups were used. More robust research designs would address many of the limitations of this study.

The fact that all clients also received EFT and may have used EFT between sessions meant that it was not possible to evaluate the effect of using MR alone.

The small sample size of this pilot study did not permit subgroup analysis or the ability to infer its results to the wider population. Sample size was restricted by the fact that the clinic could only offer a limited number of weekly appointments, as well as factors such as drop out and low attendance for follow-up. The diverse nature of emotional issues reported and addressed during therapy has also limited the ability to produce meaningful stratified analysis by condition. Future research, with larger a larger sample could focus on particular conditions, such as MR for PTSD.

Clients were not followed up long term to see if they had remained symptom free. However clients were aware that they could self-refer back to clinic if they required further sessions, or if symptoms re-emerged. It is worthy of note that at the time of writing (over 12 months after the end of treatment), none of the 24 clients in this study had sought repeated treatment from the clinic. Informal contact with some of the clients and their GPs suggested that they remained well.

Experience, training and professional background of practitioners is important, and MR was carried out by a highly trained and experienced practitioner. Variability in skills and experience of practitioners would however be expected in other settings. AS delivered the MR and also collected the evaluation data; clients were aware that he was evaluating the service, and this may have biased their responses. Also, AS's strong allegiance to EFT and MR may have influenced clients' responses.

On average, just over 8 clinical sessions were required (with a median number of 6.5 sessions), suggesting that MR may be a very cost-effective treatment. In this economically challenging era, this compares well with other therapies used for serious disorders such as Cognitive Behavioural Therapy, where 6-20 sessions may be required, depending on the condition and severity. (NICE 2008). Three clients, however, required more than 10 sessions, and the highest number of sessions attended (49) is extremely unusual in the authors' experience. This was for a client who had a range of issues including depression, anxiety, serious sexual and physical

abuse, self-harm and an eating disorder. This client is now completely rehabilitated, has since completed a counselling course and undertakes voluntary work.

As previously discussed, both EFT and MR can be self-administered. Although it is not recommended that clients use MR for serious issues and so clients were strongly advised not to do this. However clients were encouraged to use EFT between sessions. This is important, since clients need not wait until the next appointment if they are experiencing emotional distress. This empowers the client and hopefully reduces dependency on the therapist, further reducing demand upon the service over a given time period.

Studies should be carried out using a wide variety of disease severity, following-up clients for a period of up to 6 months to a year to assess long term outcome. Future evaluations should also consider including qualitative assessments to provide insight into participants' views and experiences of MR.

As with EFT, there is also much speculation out mechanisms to explain the effectiveness of MR, and a dismantling study would therefore be desirable (Karatzias et al. 2011).

MR was delivered by the lead author (AS), and by the same practitioner throughout. No provision was made for this in the current study to assess treatment fidelity; treatment fidelity is critical to ensure the accuracy and consistency of the MR intervention and so future research, should include treatment fidelity measures.

## **Conclusions and Recommendations**

In conclusion, MR shows promise as a useful clinical tool, with possible applications for a number of mental health services. However, larger studies (preferably clinical trials) are required in order to provide definitive evidence of the long term effectiveness of MR, its acceptability to clients and the economic implications.

Despite the limitations outlined above, the results of this small pilot evaluation support the potential of MR to reduce the burden of a range of physical and psychological disorders and highlight the need for further research in this area.

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