The authors describe the Service for the Treatment and Rehabilitation of Torture and Trauma Survivors (STARTTS), established by the Australian government to provide specialized services for the many torture and trauma survivors accepted as refugees in Australia. Of the clients served by STARTTS, 30% present with post traumatic stress disorder. The authors report on the integration of neurofeedback into the psychotherapy provided to these individuals.

Often refugees are not able to return home safely or remain in the country where they received asylum. There are situations in which resettlement to a third country is the only safe solution. One such country is Australia, which is a major resettlement destination for refugees. In 2007–2008, the Australian government granted 13,014 humanitarian visas (http://www.parliament.nsw.gov.au). Prior to arriving in Australia, many refugees have experienced extremely traumatic events. Many of them have been subjected to persecution, imprisonment, torture, displacement, and forced separation from their loved ones (see figure 1). They have lost their homes and their belongings and are experiencing a deep and profound sense of grief and loss. On arrival in Australia, they are faced with additional stresses associated with the settlement process in a new country: new language, no social network, disrupted schooling, and financial difficulties.

Figure 1. Refugee children crossing a wasteland in Sudan.
come with chronic, complex presentations. These individuals often live in a state of extreme vigilance; they are highly anxious and fearful and their mood is unstable. They experience recurring nightmares and severe flashbacks, and they suffer from debilitating chronic insomnia. In addition, many of them are experiencing transient dissociative episodes. This group of clients usually requires complex interventions that are often a combination of counseling, psychiatric assessment and treatment, physiotherapy, and family assistance.

Our experience suggests that conventional treatment approaches often are not able to address sufficiently the complex presentations associated with the trauma experienced by refugees. Whereas psychological and, increasingly, psychosocial issues are being addressed largely by current multimodal approaches, the neuropsychological consequences of trauma, although recognized in the literature, are still not adequately addressed. The growing body of evidence indicates that the trauma operates at the level of encoding fear in neurological pathways in the brain, consequently changing the body physiology and leading to affect dysregulation.

Affect dysregulation is one of the most challenging issues in dealing with trauma. It is difficult to change, learn, and adapt when the brain’s only priority is survival. It is STARTTS’s experience that a conventional psychotherapy for the chronic, complex presentations of post-traumatic stress disorder typically involves several years of individual and group therapy, significantly increasing the cost of service provision to this group of clients.

To breach this gap in practice, the Neurofeedback Clinic was introduced at STARTTS in 2004 (see Figure 2). As such, it was the first service in the world offering neurofeedback treatment to refugees. At the beginning, the Clinic focused primarily on work with severely traumatized children who had been already treated at STARTTS but had achieved little progress. Although psychotherapy had assisted children in reducing their symptoms, the majority of them were still experiencing issues with emotional regulation and their school progress was very slow. Upon introduction of neurofeedback together with psychotherapy, the results were very encouraging. Not only had the symptoms of post-traumatic stress reduced significantly, but the children’s social functioning and school results had improved considerably. At the same time, some children had even exceeded their parents’ and schools’ expectations by achieving excellence in their school work.

Following its initial success in working with children, the Clinic expanded its work to treat adult clients with chronic, complex presentations. The majority of those clients also had been treated at STARTTS with limited progress. Neurofeedback was used to target symptoms such as hypervigilance, nightmares, flashbacks, panic attacks, insomnia, and dissociative episodes. Our results indicated that neurofeedback provided a valuable tool in reducing symptoms of overarousal and has enabled clients to benefit from psychotherapy more effectively. The Clinic’s data show reliable success rates of around 85% when treating clients with chronic, complex presentations.

**Challenges in Integrating Neurofeedback Into the Service**

The above success rates are particularly impressive when we take into account that the client group included a substantial percentage of clients who had received other therapeutic approaches but had not been able to make substantial progress. It seems that at least for these clients, the addition of neurofeedback to their treatment protocol made a considerable difference.

Does this mean, however, that neurofeedback should become the treatment of choice for traumatized refugees? Not necessarily. Neurofeedback is, after all, a specialized intervention, requiring highly trained clinicians and specialized equipment, making it a more expensive (although not prohibitive) treatment option. Its effectiveness also has been observed in the context of STARTTS integrated approach to service provision, which suggests that neurofeedback’s most important role in the treatment of post traumatic presentations may be that of propitiating the effectiveness of other interventions.

The resource-intensive nature of neurofeedback means that in the prevailing climate of high demand for services and limited resources, neurofeedback can only be considered
cost effective for those cases where similar results cannot be achieved through less intensive and costly approaches. Based on our preliminary observations, it is likely that this group may be as small as 10% of our client group. For this group of clients, however, neurofeedback has the potential to be able to provide life-changing results.

The future focus of the Clinic, apart from further work with children and adults with complex and chronic presentations, is in developing and assessing the potential for an international course in the use of neurofeedback with trauma. The objective of this course is to present a comprehensive approach to the clinical application of the neurofeedback modality. The course will be intended for psychologists, clinical psychologists, neuropsychologists, social workers, rehabilitation specialists, and counselors. The course will be the first of its kind in Sydney, Australia, that offers a comprehensive and in-depth curriculum on application of neurofeedback in work with trauma. Internationally, it also will be the first program that offers training to the communities of clinicians working with survivors of trauma in the countries where they are not able to access neurofeedback training.

In addition, the Neurofeedback Clinic staff already have developed a training package for the service providers who are familiar with neurofeedback treatment but would like to use it in work with survivors of trauma. This training will be offered as a part of the STARTTS Professional Development Program for 2009. In order to get more information about the program, please see the STARTTS Web site and follow the links for “Professional Development Training Program.”

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