# The 2016 RAID awards for excellence in working with Challenging Behaviour

**Entry:**
Brain Injury Services, Partnerships in Care

**Authors:**
Dr Caroline Knight Lead Consultant Clinical Neuropsychologist
Professor Nick Alderman Director of Clinical Services

As a response to constraints to participation in psychological therapies and inadequate service provision for people with acquired brain injury (ABI) and challenging behaviour, specialist neurobehavioural rehabilitation (NbR) provision became available in the UK in the latter part of the twentieth century, in which a behavioural management approach, based on operant learning theory, provided the main framework for intervention. The 'organic' basis of many forms of challenging behaviour, including aggression, was recognised but, over time, the conceptual basis of NbR evolved to incorporate constructs, theories and procedures from cognitive, behavioural and social psychology, employed to promote acquisition and spontaneous use of functional and social skills to enhance social participation. From a single unit of 16 beds, NbR services in the UK have evolved to provide several hundred beds through multiple care pathways defined by age, gender and level of security (Alderman & Wood, 2013).

The conceptual underpinnings of NbR comprise a learning process that re-equips the person, as far as possible, with functional skills, cognitive abilities and social behaviours lost through ABI, to maximise personal autonomy through enhancing the ability to apply skills spontaneously and adaptively (Wood & Worthington 2001a; Wood & Worthington 2001b). Structure is sustained through the physical environment, daily routine, and implementation of methods derived from learning theory by a transdisciplinary team (TDT). These create supportive environments that increase awareness, improve motivation, shape behavioural responses into acceptable forms, and optimise capacity for social learning.

NbR has characteristics that distinguish it from other forms of neurorehabilitation. First, it addresses problems that emerge at a post-acute stage of recovery. Second, whilst some services are hospital-based, others are present in community settings. Third, it is not a medical but a psychosocial form of intervention. Fourth, rehabilitation is delivered using a TDT approach in which goals are social, functional, and client-centred. All team members are responsible for the attainment of rehabilitation goals by delivering a consistent treatment programme that is not 'session bound', providing multiple opportunities to encourage and reinforce new skills and abilities. The aim of rehabilitation is not simply to achieve socially functional behaviours but to help these behaviours become established as social habits that increase their likelihood of generalising to other environments and improve potential for social independence.

Such methods are especially effective when delivered in an NbR service structured as a therapeutic milieu. Well-managed operant methods are instrumental in creating enriched environments because they change the behaviour of other people in the first instance, promoting constructive engagement and mediating expectations about what can realistically be achieved. This encourages development of a social climate that promotes positive therapeutic relationships and good outcomes, and provides an excellent basis for intervening when behaviour serves an avoidance-escape function.

Early studies echoed the considerable improvements made by graduates of these first NbR programmes and emphasised the very challenging nature of this group who had been labelled as 'untreatable' and excluded from other services (Eames & Wood, 1985). Despite this success, NbR has had to evolve in order to meet legislative requirements regarding treatments offered and to meet cultural, political and societal expectations regarding what is acceptable and in maximising choice, autonomy and empowerment of the individual recipient of rehabilitation.

Brain Injury Services, Partnerships in Care, has been providing NbR services since 1985, increasing in size from one unit based in rural Northamptonshire to four spanning England and Scotland with over 100 beds (at the time of writing). The BIS NbR programme has successfully embraced the needs and expectations demanded of a 21st century provider of clinical services. Behavioural methodologies remain the bedrock of the programme as they create prosthetic structures that circumvent two major contributing factors that drive challenging behaviour resulting from ABI, namely neurocognitive impairment and the environment. However, in contrast to the early programmes, interventions are entirely designed around the needs of the individual, with an emphasis on assessment of brain-behaviour relationships, formulation and multicomponent treatments using both contingency management and positive behaviour support (Alderman & Wood 2013; Alderman, Knight & Brooks 2013). The enriched therapeutic milieu that results and characterises BIS units in many ways is the product of principles enshrined in RAID applied to the unique characteristics of ABI.

The evidence base for NbR applied to the modern context remains relevant (Alderman and Wood 2013; Alderman et al 2013), including savings in care costs (Oddy & Ramos 2013). Particular confirmation that the BIS NbR programme continues to successfully evolve to increase autonomy and choice amongst people with ABI is evident. BIS employs a basket of multiple recognised outcome measures, conceived and designed for ABI including the 'St Andrew's – Swansea Neurobehavioural Outcomes Scale' (SASNOS), 'Functional Independence Measure & Functional Assessment Measure' (FIM+FAM), and the 'Health of the Nations Outcome Scale for ABI' (HoNOS-ABI). The breadth of measures comprising the basket ensures the complex and non-homogenous needs of people with ABI are embraced and assessed, identifying priorities for rehabilitation and enabling tracking of response to rehabilitation. All admissions to the service are assessed on the complete range of measures in the basket during week three, at each major review of progress thereafter (usually 3 months) and at discharge. Comparison of assessments made on admission to those made most recently for people still participating in rehabilitation during 2016 revealed 'medium' and 'large' effect sizes on all measures comprising the outcomes basket. Larger effect sizes

were evident for people discharged from BIS programmes, further confirming their efficacy. Reduction in violent and aggressive behaviour was especially notable. Using an aggregate aggression score based on frequency and severity of aggression recorded on the 'Overt Aggression Scale – Modified for Neurorehabilitation' (OAS-MNR) there was a 75% reduction in violent behaviour for participants remaining in rehabilitation and a 90% reduction evident in graduates discharged from the programme. Both internal and external benchmarking reveals superior results: internally, the 75% reduction in aggression compares favourably with the 61% reduction reported for BIS last year; and externally, with the 53% aggregate aggression score reported by another well-known NbR service provider (Alderman, Knight, Stewart & Gayton 2011).

**Endorsements**

Service Users
"I came here to get better and didn't know I would turn into this. I feel a lot more involved and would like to thank the team here in helping me get back on my feet. The team understand people like me."

**Families**

*"We can't thank you enough when we see how much he has improved and that he is happy now. You are all angels."*

*"We are kept very well informed. We couldn't ask for anything better. We are very pleased and impressed by the level of care X receives. We have been led and supported by the clinical team all the way, they've been excellent"*

*"The work that has been done by the service has been amazing and it is great to see."*

**Commissioners / Professionals**

*"Brilliant job"*

*"I went down to one of your units a couple of months ago, and was very impressed. Seemed like a really excellent team and unit."*

*"Inspired enough to want to be on your team if I didn't have my own team to lead!"*

*"Great unit for brain injury"*

*"The team are doing a brilliant job with X's care needs and I am hopeful X will get better here."*

*"A big thank you to all the team that have worked so hard to support X to make this possible (moving to a more independent setting), I met a very different young man yesterday than on my previous visits, very positive."*