



Clinical outcomes: the effectiveness of rehabilitation

There has been a strong emphasis on evidence-based practice in health related fields in recent years. This behoves service providers to use methods for which there is evidence of greatest efficacy and also to evaluate their own services to ensure these are providing the desired outcomes.

The World Health Organisation has provided a means of classifying the consequences of illness and injury. *Pathology* refers to the actual anatomical and physiological damage caused by the illness or injury. *Impairment* refers to the disruption of function that this causes. A range of normal *activities* may be affected such as walking, cooking, writing. *Participation* in the usual range of roles a person plays is also recognised and this includes working, socialising, engaging in family life etc.

Following brain injury there is damage to the brain (pathology), impairment to certain functions (such as movement, fine motor skills, memory etc) and it may be more difficult to engage in certain activities such as cooking, shopping etc. In brain injury rehabilitation we usually work at the level of activities – helping people to find ways of successfully accomplishing tasks and activities such as shopping, cooking, managing their finances, organising their daily routines etc. However the ultimate goal of our rehabilitation is to enable our service users to participate in life as fully as possible and with the least assistance possible.

For the past few years we have therefore been using outcome measures designed to reflect these aims to evaluate how successful we have been in achieving them.

The main measures of outcome we use are the Supervision Rating Scale, the Neurobehavioural Rating Scale and the BIRT Aggression Rating Scale.

It takes some time to instigate a system such as this and to ensure data is collected routinely on admission, on discharge and at follow-up. However this year we have been able to collate data from all of our services and evaluate their effectiveness.

We operate several different services and for each of these we have different aims. For some clients we offer a comprehensive rehabilitation service with the aim of reintegrating them back to their homes or into the least dependent setting the individual can achieve. These service users spend least time in our centres but have the highest aims. Some of these service users may exhibit some challenging behaviour but others do not. We have seven centres who offer this service across the country. We set ourselves the target

of 75% of service users achieving a reduction in one or more levels of supervision required as measured by the Supervision Rating Scale (SRS). All of these centres achieved at least 70% and many service users achieved much more than a reduction of one level on the scale.

Our target for these clients on the Neurobehavioural Rating Scale (NBRS) was for a reduction of three points on this scale. Once again our target was reached by all but one service. The service not meeting this target was one where the service users tend to come earlier after their injury and display less challenging behaviour on admission than in the other centres. Similarly we set ourselves the target of a 20% reduction in aggression/irritability on the BIRT Aggression Rating Scale (BARS) for those service users who had significant levels of aggression/irritability on admission. Once again the target was reached except in those centres where there were very few service users with challenging behaviour.

Another service we offer is longer term care or continuing rehabilitation. Such service users may be found within designated larger centres, centres which also provide community integration programmes, or in the small, ordinary houses operated by our Community Services. Whilst all these clients are working towards goals which are regularly set and reviewed we recognise that they are unlikely to make major changes year after year. We therefore set our targets more conservatively for these service users. These are a one point reduction on the NBRS, no change on the BARS and no more than 10% regressing on the SRS. Once again the relevant services achieved these targets, often surpassing them significantly on the BARS and the NBRS.

This is just a start. We plan to use this information to direct and shape our services. The feedback it gives will help us to identify which aspects of our approach are most or least successful and allow us to direct our resources towards the most successful aspects. It also helps us to identify which groups of service users we are most successful with and those for whom we need to find alternative solutions.

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