ACQUIRED BRAIN INJURY AND NEUROREHABILITATION

TIME FOR CHANGE

Disrupting negative pathways following brain injury
Sequential Intercept Models:
Health and Education
Criminal Justice

Nathan Hughes, University of Sheffield
Huw Williams, University of Exeter
Chloë Hayward, UKABIF

www.ukabif.org.uk
When a young person has experienced a brain injury, access to various forms of neurorehabilitation optimises recovery and maximises long term potential. Intervening early and providing ongoing support through health and educational support provides opportunities to both reduce long term costs to public services and significantly improve a range of life outcomes.

The following ‘sequential intercept model’ identifies key points of support within and between health and education systems.

### INTERCEPT MODEL

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<th>INTERCEPT 1</th>
<th>INTERCEPT 2</th>
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<td><strong>Acute health care</strong>&lt;br&gt;- Rehabilitation prescriptions for all&lt;br&gt;- Access to timely neurorehabilitation&lt;br&gt;- Public awareness of need to seek medical attention</td>
<td><strong>Liaison between health services, schools and families</strong>&lt;br&gt;- Clear pathways of support from hospital to school&lt;br&gt;- Information sharing between services, and with families&lt;br&gt;- Regular holistic review of emerging needs</td>
<td><strong>School engagement</strong>&lt;br&gt;- Address special educational needs and barriers to classroom engagement&lt;br&gt;- Monitor for potential delayed / long term impact on learning&lt;br&gt;- Support transitions to secondary school&lt;br&gt;- Avoid inappropriate labels of behavioural problems</td>
<td><strong>School exclusion and Pupil Referral Units</strong>&lt;br&gt;- Reduce permanent exclusions from school</td>
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### KEY ISSUES

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<th>INTERCEPT 1 – ACUTE HEALTH CARE</th>
<th>INTERCEPT 2 – LIAISON BETWEEN HEALTH SERVICES, SCHOOLS AND FAMILIES</th>
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<td>Everyone experiencing brain injury should have access to a rehabilitation prescription on discharge from acute medical provision, with copies provided to the young person and his or her GP. Where necessary, there should be access to neurorehabilitation and professionals. Public awareness campaigns should ensure young people, families and professionals are alert to the need to seek medical attention following concussion and loss of consciousness.</td>
<td>Health services should ensure awareness of brain injury, and potential long term consequences, among schools and families, to enable monitoring, with regular information provided to the young person and family during childhood and adolescence. Primary health services should undertake regular review of potential difficulties arising from a brain injury throughout childhood and adolescence, sharing information accordingly. Bespoke support for return to school should be provided, with a named professional responsible for its implementation, with clear policies regarding ‘hospital to school pathways’ published by every local authority, based on established good practice. GPs and school nurses should be alert to indications of brain injury, and undertake screening and assessment as necessary.</td>
<td>When a brain injury is known about, the progress and needs of the young person should be regularly reviewed, including at key points in their development such as:&lt;br&gt;- In year 9, prior to the selection of GCSEs, when higher order functions should be expected to have been developed&lt;br&gt;- In transition from primary school to secondary school, or between schools, with additional support and monitoring over a full academic year&lt;br&gt;- In year 3, when students are expected to have developed sufficient reading skills to be able to ‘read to learn’&lt;br&gt;- At any point at which behaviour changes or the student is perceived to be struggling Brain injury should be recognised as likely to lead to special educational needs, and therefore the SEN and Disability Code of Practice should be applied. Teachers should be aware of potential signs of a brain injury, including changes in behaviour, the ability to engage in a classroom, or difficulties with learning. Behavioural difficulties should not be assumed to simply reflect attitude or motivation.</td>
<td>No child should be excluded from school without a full assessment for brain injury and its impact on functioning. Where such needs are identified, appropriate support should be provided to maintain the student in school. Pupil Referral Units should screen all young people for brain injury and make referral to specialist services.</td>
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Disrupting negative pathways following brain injury
Sequential Intercept Model: Criminal Justice

Research consistently suggests that at least 40% of those in prisons or young offender institutions have experienced a traumatic brain injury, and that those with such an injury are at greater risk of violent crime and recidivism, as well as poor mental health, self-harm and suicidal thoughts.

Recognising and responding to brain injury early in the criminal justice system can ensure better access to justice and more effective responses that can prevent future involvement in crime.

The following ‘sequential intercept model’ identifies key points in the system where specific challenges can be addressed and outcomes therefore improved.

**INTERCEPT MODEL**

**INTERCEPT 1**
**Policing: arrest and police custody**
- Fairer access to justice
- Diversion out of justice system, where appropriate

**INTERCEPT 2**
**Courts and sentencing**
- Fairer access to justice
- Sentencing to address causes of offending
- Reduce use of breach proceedings

**INTERCEPT 3**
**Community justice interventions**
- Responsive and engaging interventions

**INTERCEPT 4**
**Prison and resettlement**
- Reduce violence
- Address mental health needs
- Support transition and resettlement

**KEY ISSUES**

**INTERCEPT 1 – POLICING**
Screening for brain injury should take place while in police custody, as part of existing mental health assessments, with referral for full assessment or access to previous assessments prior to charging.
Training and awareness is required among custody sergeants, health staff and appropriate adults regarding warning signs for brain injury and how to respond.
Fair access to justice should be supported by altering forensic interviewing techniques and providing specialist communication support, where there may be barriers to communication.
Diversion and liaison to specialist health and related services should be considered.

**INTERCEPT 2 – COURTS**
Screening for brain injury should take place on first court appearance, with referral for full assessment prior to sentencing, or accessing previous assessments, where appropriate.
Engagement with appropriate specialist health and related services should be mandated as part of court orders as part of a therapeutic jurisprudence based on ‘problem solving’ approaches.
Fair access to justice should be supported by altering forensic interviewing techniques and providing specialist communication support, where there may be barriers to communication.
Use of breach proceedings should be resisted for minor issues in complying with orders.
Lawyers should be aware of signs of a brain injury, and use it as mitigation where appropriate.

**INTERCEPT 3 – COMMUNITY INTERVENTIONS**
Specialist interventions should address underlying causes of offending related to difficulties with cognition, executive functioning or emotional regulation.
Interventions should be altered to assist engagement by taking account of learning styles, difficulties with memory and fatigue, or cognitive impairments.
Technology should be used to remind those with brain injury of appointments.

**INTERCEPT 4 – PRISON AND RESETTLEMENT**
Holistic assessment of health needs should be undertaken soon after arrival in custody, including screening of previous brain injury, and associated risk of poor mental health, self-harm and suicide.
Specialist workers in all prisons should provide support to those with brain injury to engage in prison interventions and prepare for release.
Support through the prison gates should ensure access to health, housing and employment support, and alerting such services to the brain injury, including liaison with probation or youth justice staff.
There should be awareness among all prison staff of those with a brain injury, with appropriate training to ensure responsive support, effective engagement, and reduced use of restraint and penalties.
Imran was a happy, friendly, highly emotionally intelligent and capable young man. He was a difficult teenager at times; he could be rude and displayed some anti social behaviour. There were plans for an ADHD assessment and he was arrested for a couple of minor offences but he was never violent.

Imran was hit by a police car on a pedestrian crossing in 2012 when he was 15 years old. He suffered a severe traumatic brain injury.

He had a Glasgow Coma Scale of 5 (scale is 3-15 where 3 is the lowest and indicates complete unresponsiveness) and was taken to the Royal London Hospital. On admission he was found to have focal haemorrhages in both frontal lobes of the brain as well as other chest and facial injuries. Imran was put in to a medical coma.

When he emerged he was suffering from amnesia and reduced cognitive function. A neuropsychology assessment revealed an IQ of 54 (within the range of a diagnosis of a learning disability) and on discharge he was functioning at the level of a 6 -11 year old.

The neuropsychologist stated ‘I think I think one of Imran’s major difficulties is going to be managing himself when he gets emotionally “aroused” by situations. He cannot self-regulate or self-monitor and even when someone with skills is there to help him, he still struggles.’

A local authority social worker (with no brain injury training) visited Imran in hospital and said they felt ‘that any learning difficulty noted by medical professionals maybe short-term. He appears to be recovering from the brain trauma he’s suffered as a result of the accident’. Imran was discharged after 8 weeks in hospital.

Social Services decided he should live with his aunt as he had similar aged cousins and there was a good family routine. He became a ‘Child in Need’ and so a plan was made to ensure he had regular visits from social workers and a psychologist for 12 months. They would also compile a care plan to support him and make recommendations for his continuing education.

After 3 months of sessions from the assistant psychologist and a handful of visits from the social worker everything stopped. There was no education plan, no community integration, no mentor, no further neurorehabilitation. Nothing else.

Imran became increasingly frustrated, lonely, volatile and depressed. He could change from extremely happy to very angry and aggressive at the flick of a switch. If his surroundings were noisy or unstable in any way he could become irritated very quickly.

His aunt was unable to cope and Imran returned to live with his father. Despite complaints to social services nothing was implemented.

His father says ‘he scared us all at some time or another after his brain injury. It was like the floods of empathy he used to feel had been switched off.’

Imran ran away from home presenting himself to the hospital three days later, dirty and blistered. Social Services decided to place him temporarily in the local authority Children’s Home. There he was out on the streets all day unsupervised. He was reported missing to the police on numerous occasions when he didn’t return at night. Two days later he killed an elderly woman who lived in the room next door to his grandma in a sheltered accommodation and was arrested by the police.

In court Imran looked psychotic, he was extremely aggressive and agitated with a stare in his eye. It was noted by the Youth Offending Team that he presented with psychotic symptoms He was initially put on suicide watch but no mental health assessment was conducted, despite the family’s pleas, until he assaulted another young person. By then the psychotic symptoms had subsided.

Imran passed psychiatric tests meaning he was fit to plea. There were no neuropsychological assessments or consultations with Brain Injury Specialists. Imran was deemed fit to reside in the Youth Offending Estate and was sent to Feltham – there was no help or rehabilitation concerning his brain injury or mental health.

He was sentenced at the Old Bailey without a trial as he had pleaded guilty to murder. The family did not have proper access to him, and his solicitors did not really understanding brain injury.

The court did not take into account his head injury or his mental health issues – as he had just turned 18 he was sent to Belmarsh prison.

Five days later Imran hung himself.