Youth Justice Liaison and Diversion Scheme Evaluation Final Report

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Overview of presentations

R. Whittington
  Project overview
  Profile of activity (Webshare data)
  Changes in vulnerabilities

A. Haines
  Comparative rates of reoffending
  Qualitative interviews
  Recommendations

R. Houten & S. Richards
  Economic evaluation
Project overview
Profile of activity (Webshare data)
Changes in vulnerabilities

R. Whittington
YJLD

6 pilot sites, 2008 onwards
Diversion within and away from the YJS
10-17 year olds
  Mental health problems/issues
  Learning/communication difficulties
  Other vulnerabilities
In early contact with YJS
  Police custody suite etc.
Improved service delivery and outcomes
Profile of activity 1

December 2008 – August 2011
1027 referrals

- 92-352 per site
- 71% male
- 68% white British
- 48% police referral from custody
  Others: YOT staff, court/CPS, school
- 30% YP engaged and intervention given
  Onward referral only (27%)
  No engagement (26%)
## Profile of activity 2: vulnerabilities

<table>
<thead>
<tr>
<th>Vulnerability area</th>
<th>N</th>
<th>%</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioural</td>
<td>709</td>
<td>28</td>
<td>Anger/aggression</td>
</tr>
<tr>
<td>Social</td>
<td>530</td>
<td>21</td>
<td>Family conflict</td>
</tr>
<tr>
<td>Safeguarding</td>
<td>377</td>
<td>15</td>
<td>Domestic violence</td>
</tr>
<tr>
<td>Mental health</td>
<td>291</td>
<td>12</td>
<td>Suspected diagnosable MH problem *</td>
</tr>
<tr>
<td>Developmental (exc. LD)</td>
<td>149</td>
<td>6</td>
<td>Poor school attendance</td>
</tr>
<tr>
<td>Wellbeing/confidence</td>
<td>124</td>
<td>5</td>
<td>Low self-esteem</td>
</tr>
<tr>
<td>Substance misuse</td>
<td>120</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Suspected LD</td>
<td>48</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Physical health</td>
<td>10</td>
<td>&lt;1</td>
<td></td>
</tr>
<tr>
<td>Other issues</td>
<td>18</td>
<td>&lt;1</td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>117</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2493</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

* ADHD (49%), Conduct Disorder (19%), Autism Spectrum (19%), Depression (15%)
### Profile of activity 3: actions

<table>
<thead>
<tr>
<th>Action</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liaison (CAMHS, family, YOT caseworker, police etc.)</td>
<td>1534</td>
<td>49</td>
</tr>
<tr>
<td>Information provision</td>
<td>613</td>
<td>20</td>
</tr>
<tr>
<td>Screening</td>
<td>281</td>
<td>9</td>
</tr>
<tr>
<td>Home visit</td>
<td>226</td>
<td>7</td>
</tr>
<tr>
<td>Complete full mental health assessment</td>
<td>137</td>
<td>4</td>
</tr>
<tr>
<td>Brief intervention</td>
<td>132</td>
<td>4</td>
</tr>
<tr>
<td>Other *</td>
<td>209</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>3132</td>
<td>100</td>
</tr>
</tbody>
</table>

* e.g. convening complex needs meeting, RJ reparation
Profile of activity 4: contact and perceived influence

Mean number of contacts = 2.26 (range 0-22)
   37% 2-10 contacts
Mean time per case = 2.5 hours
   2.5% >10 hours

Perceived influence on sentencing/reprimand
   Influenced sentence (115, 34.0%*)
   Influenced reprimand (43, 22.2%*)
   Diverted to mainstream services (87, 26.6%*)
   Diverted to specialist services (132, 38.8%*)

*Percentage excludes the missing data & N/A cases
Changes in vulnerabilities 1

• N=37
  • 14.8 years, 72% male, 67% white British
• HoNOS-CA
  • 13 items, 0-4, e.g. aggression, substance misuse, emotional problems
• SQIfA
  • 8 items, 0-2. e.g. depression, self-harm
• Two time points (mean=96 days)
  • First contact and later contact
  • m=5.4 hours YJLD contact (range 1-30)
## Changes in vulnerabilities 2: results

<table>
<thead>
<tr>
<th>Domain</th>
<th>Pre</th>
<th>Post</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>HoNoSCA Total *</td>
<td>12.84</td>
<td>9.28</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>SQIfA Depression</td>
<td>1.51</td>
<td>1.08</td>
<td>&lt;.05</td>
</tr>
<tr>
<td>SQIfA Self-harm</td>
<td>0.46</td>
<td>0.14</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>SQIfA Alcohol</td>
<td>0.38</td>
<td>0.71</td>
<td>ns</td>
</tr>
<tr>
<td>SQIfA Drug use</td>
<td>0.19</td>
<td>0.08</td>
<td>ns</td>
</tr>
<tr>
<td>SQIfA Trauma</td>
<td>0.84</td>
<td>0.68</td>
<td>ns</td>
</tr>
<tr>
<td>SQIfA ADHD/hyperactivity</td>
<td>0.41</td>
<td>0.19</td>
<td>ns</td>
</tr>
<tr>
<td>SQIfA Psychosis</td>
<td>2.81</td>
<td>0.50</td>
<td>ns</td>
</tr>
</tbody>
</table>

* p<.05 reduction in Halton & Warrington, RBKC and South Tees sub-analyses also
Reoffending: objectives & methods

• Differences between the intervention and control sites

• Cohort Jan09-Mar10

• Reoffending = ‘proven reoffending’ = sanctioned offences (conviction at court or police caution)

  • Rates: occurrence, frequency, seriousness

  • Desistance from offending = time to first reoffence

• 15-30 months follow up data = PNC data provided by MoJ
Reoffending: objective & methods 2

- Quasi-experiment -> each intervention site vs. matched (but non-randomised) control site

- Matching: YOT area and individual characteristics (age, gender, ethnicity and, where permitted, offence type)

- 4 intervention sites (Lewisham, Peterborough, South Tees & Wolverhampton), matched with 3 comparator sites

- 2 intervention sites excluded: Halton & Warrington and RBKC (no control)
Reoffending: site per site results

*No statistically significant differences in reoffending* between any of the intervention and control sites (even after adjusting for differences in age and offending history).

<table>
<thead>
<tr>
<th>Site</th>
<th>N</th>
<th>Rate of reoffending</th>
<th>RR (95% CI)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lewisham</td>
<td>57</td>
<td>40.3</td>
<td>1.24 (0.82-1.88)</td>
<td>NS</td>
</tr>
<tr>
<td>Comparator 1</td>
<td>52</td>
<td>50.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peterborough</td>
<td>32</td>
<td>65.6</td>
<td>1.28 (0.96-1.71)</td>
<td>NS</td>
</tr>
<tr>
<td>Comparator 2</td>
<td>37</td>
<td>83.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Tees</td>
<td>100</td>
<td>64.0</td>
<td>0.97 (0.78-1.21)</td>
<td>NS</td>
</tr>
<tr>
<td>Comparator 3</td>
<td>95</td>
<td>54.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wolverhampton</td>
<td>19</td>
<td>57.9</td>
<td>0.54 (0.24-1.23)</td>
<td>NS</td>
</tr>
<tr>
<td>Comparator 4</td>
<td>16</td>
<td>31.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reoffending: aggregate results

• **No statistically significant differences in reoffending rates** between the intervention and control cohorts

• **Statistically significant differences** re length to first reoffence

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reoffending</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>119 (57.2)</td>
<td>114 (57.0)</td>
<td>NS*</td>
</tr>
<tr>
<td>No</td>
<td>89 (42.8)</td>
<td>86 (43.0)</td>
<td></td>
</tr>
<tr>
<td>Survival time (days)</td>
<td>369.57</td>
<td>221.65</td>
<td>&lt;0.001***</td>
</tr>
<tr>
<td>St. err</td>
<td>(26.98)</td>
<td>(24.21)</td>
<td></td>
</tr>
<tr>
<td>Hazard ratio</td>
<td></td>
<td>1.57 (1.18, 2.09)**</td>
<td></td>
</tr>
<tr>
<td>(controlling for age difference)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Chi-squared test
**Cox regression
***Log-Rank Test
Reoffending: discussion

- Results re reoffending rates suggestive but not conclusive

- Inconclusive results in line with previous research re the impact of diversionary interventions on recidivism (e.g. Gensheimer et al., 1986; Chapin and Griffin, 2005 and Schwalbe et al., 2011)

- However, statistically significant results re desistance/time to re-offence = significantly longer time to first re-offence in intervention sites compared to control sites

- This raises prospect of reductions in distress and monetary costs; opens up the possibility of further intervention at a later stage (a ‘booster’), further postponing any re-offence.
Reoffending: limitations

- Small sample sizes in individual comparisons
- Low numbers to enable correlations re what works for whom
- 4 sites only
- Limited matching between intervention and control groups – age and history of offending (but differences controlled for in the analysis)
- No calculated predicted reconviction rates (no Asset or Onset info)
- PNC data – conviction not arrest data – risk of false positives or false negatives
- Early timeframe within implementation of YJLD (1\textsuperscript{st} year)
- Other potential confounding factors not taken into account (e.g. police, courts, CPS, YOS practice; other interventions)
Qualitative study: service users’ views

• 24 in depth face to face interviews (Feb-Sept’11)

• YP: male (n=16), female (n=8); average age 14.5 (11-17)

• 11 interviews at YP’s home, 13 at YJLD office and 2 at school

• Peterborough unable to recruit any YP for interview

• Only 2 interviews with YP in Wolverhampton
Emerging themes 1

- Social strain, areas of multiple socio-economic deprivation, ‘bad areas’; single parent families, household disharmony (incl. as a result of their contact with the YJS)
- Disruption of education and difficulties with ‘mainstream’ schools
- Offending appears to be relatively ‘normal’ within YP’s peer groups
- Majority report not using alcohol and/or drugs
- Small minority - excessive alcohol consumption related to outbursts of serious violence.
- A large number of YP reported difficulties in controlling anger, often with violent consequences.
Emerging themes 2

- YP in contact with and/or receiving services from a wide range of professional agencies, e.g. YOT, CAMHS, social services.
- Mixed feelings about agencies/interventions. Some report:
  - Positive benefit;
  - Disappointment and feelings of having been ‘let down’ and
  - Antagonistic presence.

- YP appear confused about their contact with the YJLD (and the YJS in general)
- YJLD - positive, as it appears to meet their desire to be understood and helped, especially through focused attention and periods of one-to-one contact with YJLD practitioners.
Qualitative study: stakeholders’ views

- 26 in depth face to face interviews (n=29) and 2 focus groups (n=21) (Mar-Sept’11) with YJLD staff and managers and key stakeholders (e.g. police, YOT, CAMHS, court, CPS)

- **Emerging themes:**
  - All of the professional staff interviewed recognised the importance and value of diversion.
  - Effective referral mechanisms to the YJLD scheme are critical for its success.
Stakeholders’ views: emerging themes 1

• Greatest barrier to the implementation of the YJLD scheme derived from different competing priorities and agendas of partners involved in the delivery of the project.

• Different degrees of ‘buy in’ from partners, even though all signed up originally to the scheme.
Stakeholders’ views: emerging themes 2

• Relationships with CAMHS were seen as essential to addressing mental health, learning disabilities and specific vulnerabilities for young people referred to YJLD.

• Universal support for making diversion systematic or compulsory within police practice.

• Strong expression of opinion that the police should be trained to identify, appreciate and understand the significance of mental health issues in young people.
Economic evaluation

R. Houten
Economic Evaluation of YJLD

• The aim of any economic evaluation is to assess the costs and outcomes of a competing use of finite resources.

• The National Institute of Health and Clinical Excellence (NICE) base the evaluation of a healthcare technology on five fundamental elements:

  Population, Intervention, Comparison, Outcome, Study Design

• Each element needs to be clearly defined and measured for a comprehensive assessment of the intervention.
• In order to set the scene for the results of the economic assessment each of the five PICOS elements will be described relative to the YJLD pilot study.

• The economic analysis consists of 4 distinct sections:
  • Impact on criminal justice system
  • Impact on other service providers
  • Case study
  • Cost of service delivery

• The methodology employed in each section will be illustrated alongside their corresponding results.

• Suggestions for future economic evaluation of the scheme will be made both in line with the NICE assessment system and in light of the constraints faced within the current evaluation.
The basis for economic assessment of YJLD

**P** - The YJLD scheme targeted young people with varied criminal backgrounds and types of ‘vulnerabilities’.

**I** - The model of service delivery employed differed in each of the YJLD sites and therefore was evaluated in terms of site by site comparisons.

**C** - The YJLD population represents a sub-group of particularly vulnerable young offenders. However given that their treatment, in the absence of YJLD, would have been similar to other young offenders, then the YOT scheme represents the appropriate comparator.

**O** - A reduction in the level and severity of subsequent offending behaviour was the primary measure of effectiveness utilised in the economic evaluation of YJLD.

**S** - Economic analysis of an innovative integrated programme of care precludes the use of a randomised controlled trial thus requiring comparisons to be made between two matched services—in this case YJLD and YOT.
Results: Impact on the criminal justice system

- As a follow-on from the re-offending study an additional analysis was conducted on the frequency and severity of subsequent offences committed by YJLD and comparator clients.

- Corresponding court costs were allocated to offence types to demonstrate the magnitude of impact in terms of societal costs.

- The re-offences for each YJLD site cost more on average than their comparator. However given the severe data limitations such results should be treated as being indicative rather than definitive.

### Average cost of reoffending

<table>
<thead>
<tr>
<th>Site Vs Comparator</th>
<th>Average Court Costs of Reoffences (Reoffenders)</th>
<th>Average Court Costs of Reoffences (Total Cohort)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lewisham</strong></td>
<td>£9,447</td>
<td>£3,812</td>
</tr>
<tr>
<td>Comparator YOT .1</td>
<td>£4,262</td>
<td>£2,131</td>
</tr>
<tr>
<td><strong>Peterborough</strong></td>
<td>£9,662</td>
<td>£6,341</td>
</tr>
<tr>
<td>Comparator YOT .5</td>
<td>£3,285</td>
<td>£2,752</td>
</tr>
<tr>
<td><strong>South Tees</strong></td>
<td>£10,990</td>
<td>£7,034</td>
</tr>
<tr>
<td>Comparator YOT .8</td>
<td>£6,464</td>
<td>£3,538</td>
</tr>
<tr>
<td><strong>Wolverhampton</strong></td>
<td>£14,667</td>
<td>£8,492</td>
</tr>
<tr>
<td>Comparator YOT .8</td>
<td>£6,452</td>
<td>£2,016</td>
</tr>
</tbody>
</table>
Results: Impact on other service providers

- The CA-SUS questionnaire was used to identify broader resource use differences between YJLD and comparator sites and upon whom the burden falls.

- The sample-size available was small (n=20) therefore results should again be interpreted as being purely indicative at this stage.

- Initial analysis suggests school exclusion occurs less frequently in YJLD clients which would have significant resource benefits for both individuals and society over the long-term.

- However in the short term YJLD clients appear to require greater support from NHS and Social Services than their comparators.
Results: Case Study – Joanne Bloggs (RBKC)

- Joanne is a 13 year old girl who was arrested for possession of cannabis.
- She comes from a single-parent family and suffers from angry outbursts and difficult behaviour.
- She was bailed to see a worker, Mrs Smith.
- She was excluded from school.
- Mrs Smith felt that Joanne’s behaviour had not been assessed appropriately therefore through liaison with the school prevented permanent exclusion and facilitated a support system between the school, herself, Joanne and her mother.
- Joanne was not charged for her offence.
- Mrs Smith continues to support and work with Joanne and her mother.
The table below provides cost estimates for each of the key events described in Joanne Bloggs’ case:

<table>
<thead>
<tr>
<th>Event</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Stuggling at home and behaviour difficult to manage at home.</td>
<td>This does not carry a direct cost but could be influential to offending behaviour.</td>
</tr>
<tr>
<td>2. Bailed to see a worker</td>
<td>£1,469¹</td>
</tr>
<tr>
<td>3. Excluded from school (permanent)</td>
<td>£63,851 (£49,664 – cost to society and 14,187 – to the individual for future loss of earnings)¹</td>
</tr>
<tr>
<td>4. Worker continuing to support mother</td>
<td>If this was a CAMHS team member their cost is £72 per hour of face-to-face contact.²</td>
</tr>
<tr>
<td>5. Group based training in parenting skills</td>
<td>£1194³</td>
</tr>
<tr>
<td>6. Arrested for possession of cannabis (only 3rd time offence could lead to a conviction)</td>
<td>£1400⁴</td>
</tr>
<tr>
<td>7. Average cost of keeping someone in a YOI per annum</td>
<td>£47,500⁵</td>
</tr>
<tr>
<td>8. Unit cost of Police - Per average recorded crime</td>
<td>£492⁶</td>
</tr>
</tbody>
</table>

Events 6, 7 & 8 arguably would never have occurred with this young person, however it is important to highlight the high costs for the criminal justice system that are incurred if a full trial and sentence within a YOI are necessary.
Results: Costs of service delivery

- The lack of resource use data fundamentally limits the ability to undertake an economic analysis of YJLD.

- To support future evaluations it is crucial that accurate resource use data is collected for clients in both YJLD and comparator services and appropriate costs allocated.

- The only ‘resource’ data available to support this analysis related to the budgets allocated to each YJLD and comparator service and the number of clients supported.

- Although imprecise, the analysis suggests an increase in the cost at the YJLD sites in comparison to the YOT sites of between £90 and £1100 per client.
Potential to be cost-effective

• Preventing one ‘career’ criminal at an estimated cost of £80k (Nef 2010) would fund between 72 and 888 additional places on the YJLD programme.

• When the wider costs to society are considered at an estimated cost of £335k (Nef, 2010) preventing one ‘career’ criminal would fund between 303 and 3722 YJLD places.
Future economic assessment of YJLD - PICOS

P - The target population should be YP early on in their offending career (as likely to be the most malleable) and YP with ‘vulnerabilities’ that are most receptive to the specific therapeutic interventions provided by the YJLD scheme.

I - The precise nature of the intervention must be unambiguously defined and practically described so all participants have clarity on what is expected.

C - The YOT comparator represents ‘standard care’ in the absence of YJLD. A future evaluation should strive to collect data to enable adequate control for all factors of variability and thus a robust comparison.

O - A longer-term assessment of re-offending rates and the offence severity would enable more definitive conclusions to be produced. Secondary outcomes related to education and family life for example should also be measured and evaluated where possible.

S - Given the limited sample size available and the specific nature of YJLD clients it is inevitable that the matching may only have met with limited success. Ensuring a well defined and standardised model structure is employed across each individual site is crucial to facilitate a broader evaluation of the YJLD scheme.
Recommendations for Future Economic Evaluations

• Overcoming the limitations confronting this study would enable definitive rather than indicative conclusions to be drawn about this potentially valuable social policy.

• In particular generating resource use data for each individual client represents an essential component in generating cost-effectiveness estimates.

• Ensuring a uniform implementation model, clearly defined target populations and comparators and agreed primary outcomes is essential for both the implementation and evaluation of the YJLD scheme.

• A broad societal perspective is necessary to capture cost switches both between public services or towards the burden imposed on individuals or families.

• Changes in costs and benefits identified in the short term should be monitored over the longer-term to ensure any immediate impact is sustained.
YJLD Model & Recommendations

A.Haines
YJLD model & recommendations

• Results = not sufficient to create a transferable evidence-base YJLD model that could be applied in any new YJLD site

• But a number of promising approaches/key ingredients were identified

• These are mirrored in the policy, practice and research recommendations in the report
Recommendations for policy & practice

- Develop a clear and uniform diversion policy and practice
- Integrate diversion scheme with existing services
- Facilitate appropriate training to YJLD staff
- Promote systematic screening and assessment
- Match interventions to YP’s characteristics
- Incorporate youth diversion into police practice
- Promote an outreach, family and community centred approach
- Monitor progress and effectiveness
- Encourage dissemination of current results
Recommendations for research

• Develop an evidence-based ethos

• Conduct further research to boost sample size, statistical power and generalisibility of findings.

• Research would explore:
  • Mental health, developmental, learning disabilities and similar vulnerabilities;
  • Reoffending and cost effectiveness;
  • Service users’ views and satisfaction.