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A rapid evidence assessment of the impact of mentoring on re-offending: a summary

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Introduction

There has been a significant amount of recent interest in the influence of mentors in increasing the life success of individuals who are at risk of re-offending (e.g. DuBois, Holloway, Valentine and Cooper, 2002). The mentor can provide both direct assistance (e.g. helping to fill in job applications or locate appropriate housing) and indirect support (e.g. encouragement or acting as a positive role model). This would otherwise be unavailable to most offenders or 'at-risk' youth because of their family and social background.

Mentoring has been implemented as an intervention in the criminal justice context. In this setting, mentoring is usually viewed as a method of both reducing re-offending and increasing positive life outcomes such as increasing education, training and employment (e.g. Grossman and Tierney, 1998; Newburn and Shiner, 2005; O'Donnell, Lydgate and Fo, 1979).

There have been a number of evaluations of the impact of mentoring on later life outcomes, but many of these have been based on limited research designs such as case studies, small-scale qualitative studies and evaluations which did not include a control or comparison condition. These studies have a limited ability to estimate the impact of mentoring on re-offending.

The review summarised here analysed a range of studies on mentoring to assess how successful mentoring is in reducing offending. The general feature of all mentoring programmes is the contact of a less experienced or 'at-risk' individual with a positive role model. The mentor is more experienced and often older so that the mentor can provide guidance, advice and encouragement. The method used (a rapid evidence assessment) aimed to summarise the best available evidence on the effects of mentoring on re-offending in a systematic manner. The analysis was based on 18 studies where individuals were either 'at risk' of offending or had been apprehended by the police. Mentored and control/comparison groups were compared.

Key points

- Of the 18 studies assessed, seven showed that mentoring had a statistically significant positive impact on re-offending.
- Overall, the results suggested that mentoring significantly reduced subsequent offending by 4 to 11 per cent, but this result was primarily driven by studies of lower methodological quality.
- The best studies, designed to provide the most accurate assessment of the impact of mentoring, did not suggest that mentoring caused a statistically significant reduction in re-offending.
- Some mentoring programmes were more effective than others. Those more successful in reducing re-offending were where the mentor and mentee spent more time together at each meeting and met at least once a week.
- Mentoring was only successful in reducing re-offending when it was one of a number of interventions given, suggesting that mentoring on its own may not reduce re-offending. Where behaviour modification, supplementary education and employment programmes were also involved, significant reductions in re-offending occurred.
- Longer mentoring programmes were not more effective, possibly because of the difficulty in recruiting high-quality mentors throughout the period that the individual was mentored.
- Mentoring was found to be most effective when it was applied to those apprehended by the police but this may have been because these studies tended to have more comprehensive mentoring.
- Only studies in which mentoring was still being given during the follow-up period led to a statistically significant reduction in re-offending. This suggests that the benefits of mentoring did not persist after the mentoring ended.
- Mentoring seems to be a promising intervention but only two studies of lower methodological quality have evaluated the impact of mentoring on re-offending in the UK. It is, therefore, recommended that large-scale randomised controlled trials should be mounted to evaluate the effects of mentoring programmes on subsequent offending in the UK.

The key question addressed by this review was: how well does mentoring work in reducing re-offending? In order to answer this question, a meta-analysis (see Lipsey and Wilson, 2001) was carried out, which summarised the impact on re-offending in all the studies included. The method of measuring the impact (the 'effect size') quantified the results of each study in a standardised way so that the numerical value was comparable across the different studies. The average of these effect sizes provided a quantitative estimate of the influence of mentoring on re-offending. In addition, investigating how the effect sizes varied between studies (which had different characteristics) provided an indication of how these characteristics might have influenced the impact that mentoring had on re-offending.

Method

This review aimed to summarise the best available evidence on the effects of mentoring on re-offending in a systematic manner. A rapid evidence assessment (REA) was used rather than a full systematic review. The main difference between a systematic review and a REA is the restriction of the time period available to search for eligible studies. The advantages of the REA were:

- rigorous methods for locating, appraising and synthesising evidence from previous studies;
- similar to systematic reviews, the studies were reported in the same level of detail that characterises high quality examples of original research;
- REAs produced results in a fraction of the time required for a full systematic review.

The limitations of the REA were:

- due to the restricted time period unpublished, difficult-to-obtain material and foreign language studies were not included – this can reduce the confidence in the findings to some extent;
- the results may be biased because there is a greater tendency for statistically significant findings to be published (i.e. those that show the intervention had an impact) than non-statistically significant ones (Bozarth and Roberts, 1972; Vevea and Woods, 2005). This is called 'publication bias'.

A set of criteria for including and excluding studies was based mainly on the type and quality of the studies and was developed and agreed with the Home Office. The search for relevant studies involved a number of strategies including:

- contact with leading researchers in the area;
- searches of electronic databases of publications;
- focused internet searches.

This led to the identification of 49 potentially relevant studies. Of the 48 obtained, 16 met the inclusion criteria. Two of the 16 studies (Frazier *et al.*, 1981 and Davidson and Redner, 1988) reported on more than one separate study. Therefore, all the analyses were based on 18 comparisons of mentored and control/comparison groups.

Mentoring

The general feature of all mentoring programmes is the contact of a less experienced or 'at-risk' individual with a positive role model. The mentor is more experienced and often older in the hope that the mentor can provide guidance, advice and encouragement that helps to develop the competence and character of the mentee (Rhodes, 1994). The mentee is usually perceived to be 'at-risk' for various reasons, including:

- individual factors (e.g. disruptive behaviour in school, offending, substance use);
- social circumstances (e.g. lone-parent family, socially excluded).

The amount and quality of information provided about the mentors varied considerably across the studies. Mentors included students receiving course credit and community volunteers from diverse backgrounds.

The studies

Table 1 highlights some of the key features of the studies. It can be seen that most of the studies were conducted in the US while the other features (duration of mentoring, frequency of contact between mentor and mentee, average duration per contact, estimated total time mentored and the condition for the mentored group) varied considerably across the studies.

Results

Figure 1 shows the value of the standardised mean difference or d (EFFECT), the associated statistical significance (PVALUE), and the total number of subjects (NTOTAL) for each of the 18 comparisons. Positive effect sizes reflect a desirable influence of mentoring on re-offending (i.e. mentoring decreased re-offending), and negative effect sizes reflected an undesirable influence of mentoring on re-offending (i.e. mentoring increased re-offending).

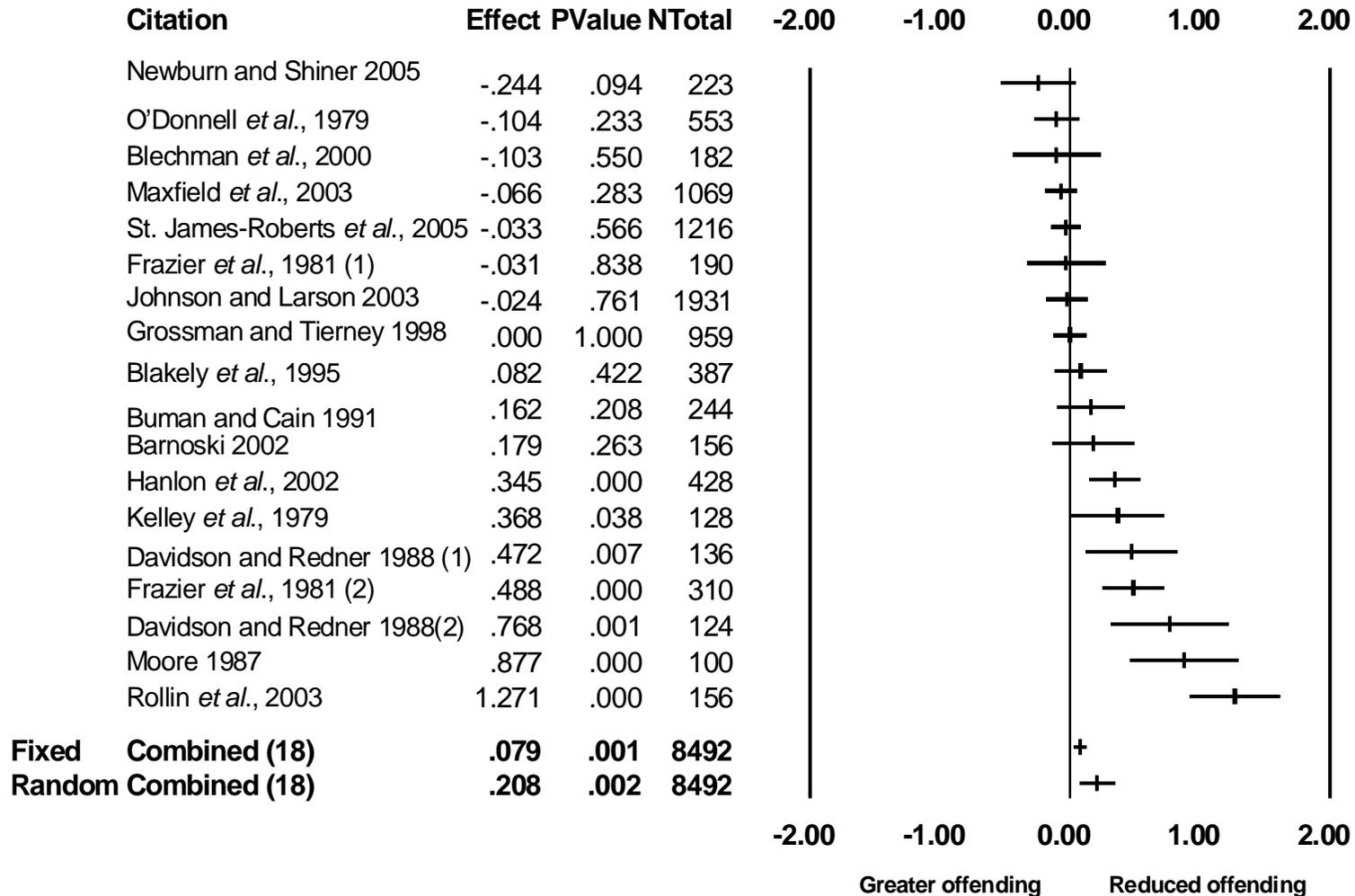
Of the 18 studies assessed, seven showed that mentoring had a statistically significant (i.e. $p = <0.05$) positive impact on re-offending (see Figure 1). A further three studies showed a positive impact on re-offending but were not statistically significant and seven had a negative (but not statistically significant) impact on re-offending. On two different measures (the fixed and random effects models) to assess the overall influence of mentoring on re-offending (controlling for the influence for other factors) both estimates suggested that mentoring had a significant beneficial influence in reducing re-offending.

Overall the results suggested that mentoring significantly reduced subsequent offending by 4 to 11 per cent. However, the effectiveness of mentoring was related to key features of the studies (see Table 1).

Table 1: Significant features of the 18 studies on mentoring assessed for this review

Studies (see References)	Country	Duration of mentoring (months)	Frequency of contact between mentors and mentees	Average duration per contact (hours)	Estimated total time mentored	Condition for mentored group
Newburn and Shiner 2005	UK	10-12	Weekly	N/A	572	Mentoring
O'Donnell <i>et al.</i> , 1979	US	12	Weekly	N/A	52	Mentoring, contingency management
Blechman <i>et al.</i> , 2000	US	4.8	N/A	N/A	147	Mentoring, juvenile diversion
Maxfield <i>et al.</i> , 2003	US	48	Weekly	N/A	696	Case management, mentoring, supplemental education, developmental activities, and financial incentives
St James-Roberts <i>et al.</i> , 2005	UK	7	Once a month	N/A	8	Mentoring
Frazier <i>et al.</i> , 1981 (1)	US	4	N/A	N/A	N/A	Diverted from court, mentoring, and other assistance
Johnson and Larson 2003	US	24	Weekly	2	144	Support groups, remedial education and mentoring in a religious context
Grossman and Tierney 1998	US	11.4	Once a month	3.6	41	Mentoring
Blakely <i>et al.</i> , 1995	US	6	Weekly	N/A	146	Mentoring
Buman and Cain 1991	US	2.5	Weekly	N/A	5	Summer work based mentoring
Barnoski 2002	US	12	Weekly	N/A	52	Mentoring
Hanlon <i>et al.</i> , 2002	US	4.5	Weekly	N/A	162	Group mentoring, individual counselling, field trips
Kelley <i>et al.</i> , 1979	US	7.5	Weekly	4	120	Mentoring
Davidson and Redner 1988 (1)	US	18	Weekly	6	108	Mentoring, behavioural contracting
Frazier <i>et al.</i> , 1981 (2)	US	4	N/A	N/A	N/A	Diverted from court, mentoring other assistance
Davidson and Redner 1988 (2)	US	24	Weekly	6	108	Mentoring, behavioural contracting
Moore 1987	US	9.1	Greater than once a month	N/A	30	Mentoring and probation programme
Rollin <i>et al.</i> , 2003	US	5.4	Weekly	8.0	332	Employment-based mentoring

Figure 1: Effect of mentoring on re-offending



Variations in features of the mentoring interventions

Successful mentoring interventions (i.e. those that had a large effect in reducing offending) differed from less successful interventions in several respects.

- **Duration of each meeting:** interventions where mentee and mentor spent more time together per meeting had a greater effect on re-offending than interventions in which mentors and mentees spent less time together, or interventions where the average duration per contact was not stipulated.
- **Frequency of each meeting:** interventions where mentors and mentees met once a week or more often reduced re-offending more than interventions with less frequent meetings, or where the meeting frequency was not stipulated.
- **Mentoring as part of a multi-modal treatment:** those studies in which mentoring was the sole intervention were less successful. When mentoring was part of a multi-modal treatment including behaviour modification, supplementary education and employment programmes, significant reductions in re-offending occurred.

The beneficial effects of the mentoring programme did not increase with the total period of mentoring in that there was not a relationship between the total duration of mentoring and the reduction in re-offending. If anything, longer term mentoring programmes had less impact, although this was not a significant relationship. This might suggest that, as mentoring programmes continue, they become less effective, possibly because identifying suitable mentors becomes more difficult (e.g. Newburn and Shiner, 2005; St James-Roberts *et al.*, 2005). Or it may be that more difficult mentees require longer term programmes.

The results suggested that the beneficial effects of mentoring on re-offending were limited to the time period when mentoring was taking place. Studies in which the follow-up period took place after the mentoring ended did not show a beneficial impact in reducing re-offending.

Variations in features of the evaluations

The results suggested that mentoring was most effective in reducing re-offending when it was applied to those apprehended by the police rather than to those 'at risk' because of their social situation or during probation or parole. However, this may be because interventions with those apprehended by the police tended to be more intensive (e.g. more frequent contact between mentor and mentee and a greater duration per contact).

When evaluations were compared according to their methodological quality, it was found that those studies with higher levels of methodological quality (see Methodological note) tended to have smaller effect sizes. Those with average quality (level 3 studies) tended to have the greatest effect sizes. This suggests that better designed studies, with less measurement bias, showed that mentoring was less effective at reducing re-offending.

Also, there was a negative correlation (nearly significant at $p = .07$) between sample size and effect size. In other words, smaller studies had greater impact than larger studies. One explanation may be because smaller studies tended to have better quality control (e.g. Farrington and Welsh, 2003). An alternative possibility is that the measured beneficial effects of mentoring may be driven by biased measurement and poor quality control.

Policy implications

Mentoring is a promising, but not proven intervention. Mentoring programmes where mentoring was combined with other interventions and where mentors and mentees met at least weekly and spent a longer time together per meeting (e.g. five or more hours) were more successful in their impact on re-offending as long as the mentoring continued.

Results suggest that mentoring could be implemented as a valuable component of intervention programmes with people who are at an early stage of their criminal careers.

The previously mentioned limitations of REAs, and the finding that better designed studies show less impact of mentoring on re-offending, suggest that it is not totally clear that mentoring has a substantial benefit in reducing re-offending. However, there was no evidence that mentoring increased the likelihood of re-offending as the studies with negative findings were not statistically significant, and therefore this negative finding might have been caused by chance.

Conclusions and research implications

Only two of the 18 evaluations (both of which were of lower methodological quality) were conducted in England and Wales, suggesting that there is little valid information about the potential impact of mentoring on re-offending in the British context. Since mentoring seems to be a promising intervention, large scale randomised controlled trials should be mounted to evaluate the effects of mentoring programmes on subsequent offending in this country. Our conclusions are limited by the use of a rapid evidence assessment, and the fact that only two, methodologically weak evaluations of mentoring have been conducted in England and Wales. The total number of studies was relatively few (18), and we cannot necessarily make causal inferences from correlations with effect size because other unmeasured factors may have contributed to the results.

Methodological note

The effect size

This provides a method of quantifying the impact of mentoring. The results of each study were standardised so that the numerical value was comparable across the different studies. The average of these effect sizes provided a quantitative estimate of the influence of mentoring on re-offending.

The weighted average effect size for the 18 comparisons can be seen at the bottom of Figure 1. According to the fixed effects model the weighted average effect size was $d = .08$ and this effect was significant ($p < .001$). The weighted average effect size for the 18 comparisons in a random effects model was $d = .21$ and this effect was significant ($p < .002$).

Measuring methodological quality

Methodological quality was measured on the modified Maryland scientific methods scale. It was found that those studies with higher levels of methodological quality (levels 4 and 5) tended to have smaller effect sizes. Level 3 studies tended to have the greatest effect sizes. This suggests that better designed studies, with less measurement bias, showed that mentoring was less effective at reducing re-offending.

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