

Case need domain: “Associates and social interaction”

by **Claire Goggin, Paul Gendreau and Glenn Gray**¹
Centre for Criminal Justice Studies, University of New Brunswick

This article presents the findings of a narrative review and a quantitative meta-analysis that examined how well the criminal associates and social interaction domain predicts recidivism. A meta-analysis is a statistical technique that aggregates the findings of several individual studies. The results of each study are converted into a common measure, known as an effect size (e.g., a Pearson r correlation coefficient), to enable comparison. Although both weighted and unweighted effect sizes can be used, the weighted effect size is generally considered to be more accurate since it adjusts the size of the correlation based on the size of the sample.

Thirty-five studies generated 75 effect sizes with recidivism. The associates and social interaction domain produced an average effect size with recidivism of $r = .18$, replicating the results of a previous meta-analysis² that indicated that this domain is one of the most robust predictors of recidivism.

Within this domain there were three components, of which association with criminal companions proved to be the strongest predictor, followed by crime neighbourhood (crime rate in area of socialization) and criminal family (whether parents or siblings are involved in crime). Moreover, the literature search uncovered additional measures that may prove useful for the upcoming revisions to the Case Needs Identification and Analysis (CNIA). Specific recommendations for enhancing the associates and social interaction domain of the CNIA are provided.

In the criminological literature, there is general agreement that the extent to which an offender associates with antisocial peers is critically important to the development of criminal behaviour and the prediction of recidivism.³ In the developmental literature, evidence suggests that serious delinquency

during adolescence is linked to social ties.⁴ Meta-analyses in delinquency prediction have confirmed this.⁵

The effects of associating with criminals among adult offenders, however, has been relatively neglected. This is surprising, as surveys have identified association with criminals as one of the most prevalent problems of adult offenders.⁶ Furthermore, a recent meta-analysis of the predictors of adult offender recidivism found that the associates and social interaction

predictor domain was under-represented compared with other predictor domains. More importantly, however, was that this domain was one of the more robust predictors of recidivism.⁷

A re-assessment of the predictive validity of this construct is timely given the evaluation of the CNIA. Consequently, this study has the following three objectives: to update a recent meta-analysis that examined the predictive validity of the associates and social interaction domain; to broaden the scope of the domain by searching for valid predictors in addition to criminal associates; and to review the psychological test literature for recent psychometric instruments that measure the criminal associates and social interaction domain.

Methodology

We conducted a literature search for relevant studies published

between January 1994 and December 1997. These studies were added to the database used in the 1996 meta-analysis.⁸

Only studies that met the following criteria were included:

- Data on the offender was collected before the recording of the criterion measure. A minimum follow-up period of six months

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was required. If a study reported more than one follow-up period, we used the data from the longest interval.

- Recidivism had to be recorded when the offender was an adult (18 years or older). The criterion measures were arrest, conviction, incarceration, or probation or parole violation.
- information that could be converted into a common measure such as the Pearson *r* correlation coefficient was also required.

Further, we excluded treatment studies that directly attempted to change offender attitudes or behaviour.

We recorded sample characteristics such as age, gender, race, type of offender, intake risk level and violent offence history for each study.

Results

The literature search located 35 studies deemed suitable for the meta-analysis that generated 75 effect sizes between a criminal associate predictor and recidivism. Three predictor categories of the

criminal associates domain were found: companions, crime neighbourhood and criminal family. "Companions" was measured either by the associates subset of the Level of Supervision Inventory—Revised (LSI-R),⁹ or

other variables tapping criminal acquaintances, friends and associates, or identification with criminal others. "Crime neighbourhood" assessed the crime rate for the offender's area of socialization. "Criminal family" assessed whether the offender was living in a family environment where parents or siblings were involved in crime.

For those variables where at least 50% of the studies reported information on sample and study characteristics, the results were as follows: (a) 97% of the effect sizes came from male or mixed gender samples; (b) 71% were associated with adult or mixed adult/juvenile

samples; (c) 69% were associated with subjects of mixed risk levels; and (d) less than 5% were associated with offenders with a violent or sexual offence history. The majority of effect sizes were derived from studies that used a minimum two-year follow-up period, defined recidivism in terms of conviction, incarceration or a combination thereof, and were associated with non-violent recidivism.

As seen in the Table 1, 75 effect sizes based on 39,676 offenders generated a statistically significant mean Pearson *r* of .18 between associates and recidivism. The companions subcomponent yielded the strongest relationship with recidivism (*Mr* = .19), followed by criminal family (*Mr* = .17), and crime neighbourhood (*Mr* = .12). The 95% confidence interval for companions about *Mz*⁺ further reinforces this finding, as it does not overlap with crime neighbourhood or criminal family.

Further analyses revealed that gender, age, risk level and methodological rigour did not influence the results.

Table 1

Mean Effect Sizes for Criminal Associates Predictor Domain

Predictor (<i>k</i>)	N	<i>Mr</i> (SD)	CI	<i>Mz</i> ⁺	CI
Companions (38)	16,118	.19 (.10)	.16–.20	.21*	.19–.22
Crime neighbourhood (6)	7,226	.12 (.08)	.03–.21	.15*	.12–.17
Criminal family (31)	16,332	.17 (.10)	.13–.21	.12*	.11–.14
Total (75)	39,676	.18 (.10)	.16–.20	.17*	.16–.18

Note: *k* = number of effect sizes per predictor domain; *N* = subjects per predictor domain; *Mr* = mean Pearson *r*; SD = standard deviation;

Mz⁺ = weighted version of *Mr*; CI = confidence interval

* *p* < .05.

Assessment protocols

In addition to the LSI-R and the CNIA, the review located five other measurement instruments that assessed the criminal associates predictor domain. Each measure contained items that may prove useful for the upcoming revisions of the CNIA. These are the Criminal Socialization and Lifestyle Questionnaire (CSL),¹⁰ the Social Network Rating Scheme (SNRS),¹¹ the Differential Association Questionnaire,¹² the Exposure to Family and Peer Deviance Indices,¹³ and the Index of Social Contacts.¹⁴

Discussion

The results of this investigation confirm that the associates and social interaction domain, particularly the companions subcomponent, is one of the most powerful predictors of recidivism. The ability of companions in predicting recidivism for female and Aboriginal samples is problematic. Some argue that many of the predictors of adult female and male recidivism are similar,¹⁵ despite the paucity of evidence. Two studies have demonstrated that companions is equally predictive of recidivism for both Aboriginal and non-Aboriginal offender groups.¹⁶

We made a somewhat controversial decision by including crime neighbourhood and criminal family as part of the criminal associates predictor domain, and we admit that crime neighbourhood is a weak approximation of the criminal associates construct. This category included only six effect sizes and the mean weighted effect size was heavily skewed by one study with a large sample that measured “area of socialization: inner city versus rural.”

The other category, criminal family, is usually classified as a “family” domain predictor. Nevertheless, association with parents and siblings who are criminals is a form of social interaction with criminals with potentially long-lasting effects. The magnitude of this predictor variable was similar to that of companions in the case of the unweighted r only.

Recommendations

Besides improving the knowledge base of the criminal associates predictor domain, a major purpose of this study was to make recommendations for revising the CNIA. The CNIA has 11 items in its associates and social domain with two principal components: attachments and interpersonal relations. The meta-analytic database in this study was small and the range of items within each category was limited. Therefore, some of the following recommendations reflect speculative clinical wisdom.

As there is strong empirical validity for the companions predictor category, the existing

items in the attachments category should continue to be used. It is debatable whether seven items are necessary. For example, the LSI-R companions section has only four items that generated adequate predictive validities in the meta-analysis. Another approach would be to adapt some items from the SNRS. The “density” scores from the associates, respect, instrumental and emotional support domains of this instrument are particularly intriguing. The SNRS should, at the very least, be piloted in the system. This could produce adequate predictive validities.

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Another possibility for the attachment section of the CNIA would be to assess changes in an offender’s socialization patterns while in the community. If the information is available, an additional question on prison socialization patterns before release on parole would also be useful.

Whether a few criminal family items should be in the CNIA associates and social interaction domain is questionable. There is already one item of this nature in the marital and family domain. Also, the way the item was asked in this meta-analysis was far in the offender’s past, thus, out of place in the associates/social domain where

all of its items reflect the present. The question could be asked in the present tense and should also focus on family offence rates and depth of illegal involvement.

If a question pertaining to crime neighbourhoods is included, it might be phrased in terms of the offender’s perception of crime problems in the area.

We believe that the four items in the interpersonal relations principal component of the CNIA are problematic. This meta-analysis did not find any predictor items that covered the four items. They may well belong in the personal domain group or perhaps interpersonal relations should become a domain in itself.

Despite these limitations, this meta-analysis confirms that the attachment component of the associates and social domain is a very important part of the CNIA. ■

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