

August 2019



# **Rapid Evidence Review: Alcohol Interventions and the Criminal Justice System**

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## Foreword

In developing its future programme of grant-funded research, Alcohol Change UK wished to explore what is known, and what is yet to be understood, in a series of key areas, as follows:

- Topic one      The role of alcohol in intimate partner relationships
- Topic two      The impact of alcohol on the human brain
- Topic three     Alcohol interventions and the criminal justice system
- Topic four     The relationship between alcohol and mental health problems
- Topic five      Drinking problems and interventions in black and minority ethnic communities
- Topic six      Digital interventions to reduce alcohol related harm

These areas were selected through stakeholder engagement and consultation, as well as 'horizon-scanning' the research, policy and practice environment to identify where particular gaps appeared.

Rapid evidence reviews were commissioned on the six topics and their findings will allow Alcohol Change UK to synthesise knowledge on this particular range of subjects. This will help inform our own work, as well as leading to outward-facing publications that will allow the public, practitioners and policy-makers to better understand the research in these key areas.

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## Acknowledgements

My heartfelt thanks to Charlie Lloyd for his useful and much-valued suggestions during the writing of this review.

This report was funded by **Alcohol Change UK**. Alcohol Change UK works to significantly reduce serious alcohol harm in the UK. We create evidence-driven change by working towards five key changes: improved knowledge, better policies and regulation, shifted cultural norms, improved drinking behaviours, and more and better support and treatment.

Find out more at [alcoholchange.org.uk](http://alcoholchange.org.uk).

Opinions and recommendations expressed in this report are those of the authors.

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# Executive summary

## Key findings

- The reviewed literature on alcohol interventions in the criminal justice system is highly heterogeneous.
- No specific model of treatment at any stage of the criminal justice system was supported by a substantial, robust and consistent body of literature. However, some patterns could be described.
- Interventions targeting women most frequently (50%) reported reductions in alcohol use.
- Interventions that only recruited men rarely (20%) reported reductions in alcohol use.
- Evaluations of brief interventions rarely (25%) reported reductions in alcohol use.
- Evaluations of motivational interviewing rarely (31%) reported reductions in alcohol use.

## Objectives

This review sought to identify, screen, and review peer-reviewed journal articles published between 2000-2019 that report alcohol outcomes from interventions seeking to reduce alcohol use as a primary or secondary objective. Interventions were delivered within the criminal justice system (CJS) or to people accused of, or sentenced for, crimes.

## Method

Abbreviated sets of search terms were entered into two search engines (PubMed and PsycInfo). Searches sought to identify interventions delivered at five points within the CJS:

- 1 Pre-arrest, arrest, and police custody;
- 2 Courts and sentencing;
- 3 Probation and parole;
- 4 Prison; and
- 5 Resettlement and aftercare.

The search strategy was iterative, evolving as searches progressed. Identified gaps led to the addition of a sixth domain:

- 6 Offence- and offender-focused interventions.

Due to the distinctive needs of women and young people, data for these two groups were extracted (and are reported) separately.

After duplicates were removed 4,901 titles and 701 abstracts and full-texts were screened. Five systematic reviews were also reference-mined to identify studies of potential relevance. The state of the current evidence base is assessed with reference to 48 papers from 44 comparative studies. Only studies with comparison groups are reviewed in the main body of this report<sup>1</sup>.

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<sup>1</sup> When searches were first conducted, a decision was made to include studies with no comparison group to secure a broader overview of the literature and of interventions / evaluations being delivered. As the review progressed, it became apparent that studies with no comparison group could not meaningfully be included in any synthesis of findings that described the efficacy of treatment. The risks of bias are too great. To this end, only comparative studies are reported on in the main body of this report. However, studies with no comparative element are described in Appendix 3

A descriptive synthesis of evidence was planned, informed by the findings of other recent reviews which have identified studies using heterogeneous outcome measures applied to heterogeneous interventions. In this context, meta-analysis would be impossible; this expectation proved well-justified.

## Findings

### Overview

This review identified a lack of substantial, robust and consistent evidence relating to reductions in alcohol use from any intervention type of any intensity delivered to any group at any stage of the CJS.

This noted, a handful of robust evaluations identified treatment effects in some interventions. These included:

- Collaborative behavioural management (probation; men and women);
- Automated telephone risk assessments (probation);
- Motivational interviewing as an adjunct to domestic violence programmes (courts);
- Judicial supervision (drug courts);
- Acceptance and Commitment Therapy (women's prisons)
- Therapeutic communities (prisons); and
- Dialectical behavioural therapy (women, post-release).

These were isolated examples. Each was supported by just one or two evaluations, sometimes conducted in the same setting and by the same research team<sup>2</sup>. However, they may indicate promising directions for future interventions and research.

Additionally, a larger proportion of papers reporting outcomes for female offenders (as opposed to those reporting on men, young people, or amalgamated mixed-gender cohorts) identified positive treatment effects. The two mixed-gender studies that reported women's outcomes separately<sup>3</sup> also reported that women made greater alcohol-related treatment gains than men. This suggests that gender may be important.

This review also identified examples of interventions less frequently associated with positive treatment outcomes, based on a larger body of evidence:

- Brief interventions (<3 hours of face-to-face psychosocial intervention) were evaluated by twelve studies. Three (25%) reported clear and substantive reductions in alcohol use.
- Motivational interviewing underpinned thirteen interventions. Four (31%) were associated with clear and substantive reductions in alcohol use.

For most other types, intensities, and durations of intervention, closer to half of all publications reported clear and substantive reductions in alcohol use.

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(Further appendices), and all studies are described in the narrative summary of papers (Appendix 4 – Further appendices). These sections include reports on 18 additional papers from 17 additional studies.

<sup>2</sup> E.g. Therapeutic communities were evaluated by three publications arising from two studies in the same setting (Sullivan et al., 2000; McKendrick et al., 2006; Van Stelle et al);

<sup>3</sup> Polcin et al., 2018; Friedman et al., 2011; Johnson et al., 2011.

### Risk of bias

Studies' assessed risk of bias did not appear to play an appreciable part in distorting reviewed findings:

- 56.5% of studies with a low risk of bias (13 of 23) reported no effects.
- 50.0% of papers with a moderate risk of bias (five of 10) reported no effects.
- 54.5% of papers with a high risk of bias (six of 11) reported no effects.

No appreciable patterns of bias likely to affect the conclusions of this review could be found in any reviewed area, for any reviewed group, or for any kind of intervention of any duration.

### Stages of the criminal justice system

No substantial, robust and consistent evidence could be found for interventions delivered in any stage of the CJS.

- 1 Two papers evaluating interventions within, or arising from, police custody focused on different initiatives. Their findings are inconclusive.
- 2 Twelve papers evaluated a wide range of initiatives based in court or delivered as a sentencing option. As a body of reviewed evidence, these publications provide little support for any particular treatment approach. However, a handful of studies indicate there may be value in further evaluations of judicial monitoring in drug courts and alcohol interventions appended to domestic violence interventions.
- 3 Sixteen papers evaluated a range of psychosocial approaches to prison treatment. As a body of reviewed evidence, these publications provide little support for any particular treatment approach. However, two studies (conducted in one setting) indicate there may be benefit in further evaluations of therapeutic communities.
- 4 Ten papers evaluated a range of (predominantly case management) interventions within the probation or parole setting. As a body of reviewed evidence, these publications provide little support for any particular treatment approach. However, two robust evaluations suggest potential benefits in further evaluations of automated telephone risk assessments and collaborative behavioural management.
- 5 Four papers evaluated resettlement or aftercare interventions. Their findings are inconclusive.
- 6 Three papers evaluated interventions engaging people at any stage, or at nonspecific stages, of the CJS. Their findings are inconclusive.

### Young people

No substantial, robust and consistent evidence could be found for interventions delivered to young people.

- Four papers reported on interventions for young people. They approach heterogeneous interventions. Their findings are inconclusive.

### Women

No substantial, robust and consistent evidence could be found for interventions delivered to women.

- Twelve papers reported on interventions for women or reported women's outcomes separately. They approach highly heterogeneous interventions and, taken as a body of reviewed evidence, provide little support for any particular treatment approach.
- However, a handful of studies point to potential benefits in conducting further evaluations of acceptance and commitment therapy (ACT) (prisons), dialectical behavioural therapy (resettlement) and collaborative behavioural management (probation).

Additionally, studies that engaged both men and women were reviewed as men's interventions. This may mask additional gendered effects: just two of the 10 evaluations that only engaged men identified clear and consistent treatment effects, with seven identifying none. (See section 8. Women, for details). Succinctly, then, it appears that gender may play a significant in alcohol interventions within the CJS.

### Types of intervention

No substantial, robust and consistent evidence could be found for any broad category of intervention (e.g. pharmacological or psychosocial):

- Papers reporting on interventions categorised as case management, pharmacological, practical and psychosocial were divided in roughly equal proportions between those identifying treatment effects, and no treatment effects.
- None of the papers reporting on (a diverse set of) sentencing options (N=3) or practical resettlement support (N=3) reported positive outcomes.

### Specific model of intervention

No substantial, robust and consistent evidence could be found for any theoretical framework structuring an intervention; though a preponderance of papers identified no effects arising from motivational interviewing.

- Fourteen papers reported on interventions structured according to the principles of motivational interviewing. A majority (seven out of 13) identified no treatment effect, and two more reported predominantly 'no effect' findings.
- No other approach was evaluated by more than three studies.

### Intensity of intervention

No substantial, robust and consistent evidence could be found for any theoretical framework structuring an intervention; though a preponderance of papers identified no effects arising from brief interventions.

- Twelve articles evaluated brief interventions. Of these, seven (58.3%) identified no effects and two (16.7%) reported predominantly 'no effect' findings.
- All other varieties of treatment intensity (moderate, high, constant and long-term, variable) were divided in roughly equal proportions between identifying treatment effects, and no effects.

### Motivational interviewing and brief interventions

The preponderance of 'no effect' motivational interviewing and brief intervention papers did not appear to be directly related. Five of nine brief MI interventions (45%), and three of five longer interventions (60%), reported no effects.



## Conclusion

To mix metaphors, this review has identified some potentially promising seeds amidst a generally muddy canvas. Some approaches, evaluated by a handful of studies, offer some promise. However, the papers reporting them were all too often derived from just one study, just one setting, or just one research team. Other interventions or approaches were evaluated somewhat more but appear less promising. This was particularly the case for interventions focused exclusively on men; brief interventions; and interventions based on motivational interviewing.

A core challenge in identifying treatment effects is the heterogeneity of reviewed studies. Few approaches have been repeatedly implemented and evaluated in a way that permits treatment effects for alcohol use to be identified. Newbury-Birch et al. (2016; 2018) note that this is partly due to the difficulties of following up imprisoned cohorts following release, and this is clearly true of prison-based interventions. However, interventions in other contexts and domains evidenced similar difficulties.

Whilst acknowledging these difficulties, some recommendations can be made regarding research.

- Firstly, women's outcomes should be reported. Female offenders and treatment seekers differ from men in terms of their needs (e.g. Corston, 2007; Covington, 2011) and treatment outcomes (e.g. Grace, 2017; Kennedy et al., 2012:56). In this review, 19 of 21 mixed-sex studies reported no women's outcomes. This creates a real gap in research knowledge.
- Secondly, there is potential for a review of the impact of alcohol interventions on offending outcomes. 285 papers were excluded from this review because they reported no alcohol outcomes. Many of these instead drew on routinely collected offending data. Whilst this was beyond the reach of this study, these papers have the potential to add significantly to understandings of the relationship between alcohol and crime, and the social benefits of alcohol interventions within the CJS.
- Thirdly, the lack of treatment effect for men identified in this review would benefit from more attention.

This review also supports two recommendations for policy and practice.

- Firstly, many offenders have very high levels of need. Those leaving prison – even from intensive treatment programmes – may be facing imminent homelessness (e.g. Lloyd et al., 2017). In this context, it is perhaps unsurprising that brief interventions may struggle to deliver substantive outcomes (Newbury-Birch et al., 2018). A clear fit between needs and treatment intensity has the potential to pay dividends; but delivering light-touch interventions to seriously marginalised populations may be optimistic.
- Secondly, interventions within this review mostly targeted a single stage of the CJS. Few interventions followed an individual as they progressed through the CJS, and even fewer followed them for a considerable period of time. This can create a 'cliff-edge of support' on release (Lloyd et al., 2017). There may be real benefit in designing interventions that meaningfully follow individuals over the course of a treatment journey, even if this involves working through across multiple stages of the CJS (see, for example, Olson and Rozhon, 2011).

## Introduction

### **Alcohol, crime, and the criminal justice system**

People with alcohol problems are over-represented in the CJS, with a recent systematic review reporting that between 53% (lower estimates within probation) and 95% (people presenting at magistrates' courts) of offenders have alcohol use disorders (Newbury-Birch et al., 2016). Serious crimes are also disproportionately associated with alcohol use. Estimates from the Crime Survey of England and Wales suggest that 39% of violence – or 561,000 incidents in 2017-18 – were alcohol-related (ONS, 2019).

However, alcohol is also associated with a plethora of less serious offences. In 2017, an experimental statistical release from the Ministry of Justice (MoJ) and Public Health England (PHE) identified that violence (5.7% of all offences) was the fifth most common offence for those accessing treatment for alcohol problems, preceded by summary offences (37.7%), breach offences (18.1%), theft from shops (13.4%) and public order offences (6.3%) (p.12). Overall, PHE attribute an estimated £11bn p/a to the cost of alcohol-related crime (2014).

However, the relationship between crime and alcohol is complex. People who enter the CJS are likely to do so because of exceptional behaviour. There is consequently a particularly high chance that their behaviour will 'regress toward the mean' – become less problematic – as time passes, with or without treatment. In this context, claims that individuals reduce their offending after engaging with treatment (e.g. MoJ and PHE, 2017:14) cannot be taken to indicate the efficacy of treatment. Further complicating the picture, systematic reviews of both brief and more extensive alcohol-related interventions have come to no clear conclusion, identifying small numbers of heterogeneous studies reporting variable treatment effects (Newbury-Birch, 2016; 2018).

Nonetheless, there is a strong rationale for identifying and providing effective alcohol treatment. Alcohol harms disproportionately affect socially disadvantaged groups (e.g. Roche et al., 2015), including offenders. The CJS may offer a 'window of opportunity' for intervention. In the UK, brief interventions have been piloted for people arrested for alcohol-related offences (Kennedy et al., 2012), and were associated with non-significant reductions in reoffending<sup>4</sup>. They gained no foothold in national provision. Other measures have been widely deployed: Alcohol Treatment Requirements can be attached to community sentences given by courts, and alcohol-focused accredited programmes were widely delivered in prisons<sup>5</sup>. Despite some signs that these may increase prisoners' motivation to change (e.g. Kopak et al., 2015; Disbury, 2013), reflecting a broader limitation of the literature, none of these have been evaluated by studies assessing their actual impact on alcohol use.

At the same time, there are increasing opportunities for innovative, evidence-based interventions within the UK's CJS. In a time of austerity, police forces have had to think more carefully about how to target and deploy increasingly limited resources. This has supported a burgeoning interest in evidence-based policing and work with vulnerable groups (e.g. Innes, 2010; Sherman, 2013). Concomitantly, a refocusing and restructuring of commissioning processes has led to the rise of 'recovery' initiatives within prisons (e.g. Powis, Walton and Randhawa, 2014; Lloyd et al., 2017). Early evaluations suggest these

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<sup>4</sup> They were also associated with reductions in alcohol use but relied on pre-post measures within a cohort. The lack of a comparison group makes it impossible to assert any substantive connection between the intervention and this reduction in alcohol use.

<sup>5</sup> Knowledge about the extent to which programmes are being delivered in prisons diminished with changes in commissioning structures in 2013. Annual figures are no longer reported, and programmes are no longer required to be 'accredited'.

interventions may be particularly well-suited to supporting younger offenders with alcohol problems (Page et al., 2016).

Framed by this context, this review sets out to identify, secure and review papers on alcohol interventions within the CJS.

## Methodology

### Aims of the review

This review seeks to rapidly identify and review the available evidence on alcohol interventions within the CJS.

‘Alcohol interventions’ are operationalised as interventions seeking to reduce alcohol use as a primary or secondary outcome.

‘The criminal justice system’ is operationalised as five key stages of the CJS (pre-arrest, arrest and police custody; courts and sentencing; prison; probation and parole; and resettlement and aftercare), plus interventions related to alcohol-related offences or targeting offenders.

### Scope of the review

Searches were restricted to articles published in peer-reviewed journals between 2000-2019<sup>6</sup>. All searches were conducted on abstract and title fields.

Only English language publications were reviewed.

### Identifying the literature

#### Databases

Searches were conducted using PubMed and PsycInfo.

Five systematic reviews were reference mined, to identify additional papers not secured by searches. Three were recent, focusing on directly relevant interventions and populations (Newbury-Birch et al., 2016; Newbury-Birch et al., 2018; De Andrade et al., 2018). A fourth focused on interventions within UK criminal justice (McMurrin, 2011), and a fifth reviewed interventions focused on alcohol-related violence (McMurrin, 2012).

#### Search strategy

It is possible that ‘alcohol’ may not be the most appropriate or comprehensive search term for identifying alcohol-related interventions. Consequently, exploratory searches using PubMed compared several sets of possible search terms by varying the PI elements (**P**opulation / **I**ntervention) of PICO (plus **C**omparison / **C**ontrol and **O**utcome) frameworks. Key comparisons centred on assessing the additional costs (in time and resources) and benefits (in additional reviewable papers) of searching for:

- 1 ‘Alcohol’; and / or
- 2 ‘Substance misuse’ or ‘substance abuse’; or

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<sup>6</sup> This has created some known absences within this review. Newbury-Birch et al. (2018) review several long-duration prison treatment programmes evaluated in the early 1990s; whilst Newbury-Birch et al. (2016) review three Home Office publications describing an evaluation of UK alcohol arrest referral in police custody.

### 3 'Substance misuse' or 'substance abuse' or 'substance use.'<sup>7</sup>

These searches revealed that the three approaches identified substantively different bodies of literature. For example, of 495 papers secured using the third search strategy, just 108 (21.8%) were identified by searching for 'alcohol.' However, the gains were minimal. After reviewing an additional 387 titles and abstracts, just one additional paper was identified for review. Contrastingly, a review of 235 'alcohol' titles led to the identification of 21 papers for review.

Given this was already going to be a broad review with a short window for completion, a decision was consequently made to search for 'alcohol' only. Throughout all subsequent searches, the strategy thus comprised:

- ('alcohol' [I]) and ('intervention' or 'treatment' or 'program\*' [I])

Abbreviated search terms for each domain were then identified on the basis of familiarity with the literature, and a discussion with colleagues. These were:

- ('arrest\*' OR 'polic\*' OR 'custod\*' [P])
- ('court\*' OR 'sentenc\*' [P])
- ('prison\*' OR 'correctional' OR 'incarcerat\*' [P])
- ('probat\*' OR 'parol\*' [P])
- ('resettl\*' OR 'throughc\*' OR 'afterc\*' [P])
- ('offenc\*' OR 'offend\*' OR 'criminal\*' [P])

Six separate searches were conducted<sup>8</sup>. This led to some duplication of results, but also offered substantial benefits. Individual searches allowed for an iterative and adaptable approach, with individual search strings tweaked or adapted to explore the impact of various changes. Thus, additional searches for alcohol-related tagging were tested; as were adaptations exploring 'sobriety' and 'diversion'. After duplicates were removed, none of these adaptations were retained. Contrastingly, the addition of 'incarcerat\*' to prison searches, 'program\*' to all searches, and the development of a sixth offence-focused search string were all positive additions enabled by this flexible and modular approach.

As an addendum, most searches identified the expected bodies of literature. Prison searches mostly returned prison-related papers, court-related searches returned court-related papers, and so on. The exception was police: where just two of nine papers focused on arrest or police custody. However, this means that the PRISMA flow charts for individual searches (Appendix 1) do not straightforwardly reflect the papers reviewed for each stage of the CJS<sup>9</sup>.

### Screening methods

Each set of search terms was entered separately into PubMed and PsycInfo.

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<sup>7</sup> For exploratory searches, these alternatives were combined with ('prison' OR 'correction\*') and ('intervention' OR 'treatment').

<sup>8</sup> Initially, separate searches were also proposed to identify interventions targeting women and young people. On reflection, it was apparent that this was daft: any such search strategy would rely on adding additional qualifying terms to searches that had already been conducted, yielding results that were nothing more than a subset of those that had already been secured.

<sup>9</sup> The relationship between PRISMA flow charts and reviewed papers is further complicated by the sequencing of searches (prison -> police -> courts -> probation -> resettlement -> offences and offenders). As duplicates were removed from each set of search results, relevant papers identified by two search strings would only be retained in the first set of screened papers.

Summaries of search results were then exported as .CSV files and copied and pasted into an Excel workbook as separate worksheets. Titles were standardised for comparability<sup>10</sup>, and Excel's VLOOKUP function used to (in principle) automate the identification of duplicates between searches.

Duplicates were filtered out. Titles were then manually screened, with all those indicative of an intervention highlighted. An inclusive approach was taken at this stage.

Highlighted titles were then re-visited, with abstracts checked in an exported PubMed or PsycInfo file. Where abstracts indicated that a paper was either conclusively relevant or inconclusive, full-texts were secured. Otherwise, reasons for exclusion were noted in the Excel file.

Some additional papers were retrieved – sixteen were identified as having good contextual potential, though they did not report alcohol outcomes from a criminal justice intervention. Sixteen further reviews and systematic reviews of aspects of drug treatment within the CJS were retrieved (though time and resources have not allowed for all of these to be reference mined). Thirteen qualitative papers were retrieved for additional context.

A second reviewer checked 20% of the titles identified from one search (probation and parole).

### **Data extraction**

Once full texts had been secured, an Excel workbook was assembled collating data on:

- Title
- Reporting on women or young people;
- Setting (courts, probation, etc);
- Target (e.g. 'homeless female ex-offenders residing in the community');
- Risk of bias;
- Country;
- Year of publication;
- Authors;
- Research design;
- Intervention vs comparison conditions;
- Number (intervention), number (comparison);
- Period of follow-up;
- Proportion followed up;
- Measure of alcohol use (e.g. timeline followback, AUDIT);
- Method of analysis;
- Outcomes.

This last box was used generously, documenting alcohol outcomes in depth alongside a synthesis of other key outcomes.

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<sup>10</sup> For example, PsycInfo adds '[References.]' after many titles. Removing this – and a small number of similar quirks – significantly improved automated duplicate-checking.

The data retrieved for comparative studies and the data retrieved for studies with no comparison group are reported in Appendix 2 and Appendix 3 respectively, in a separate document (Further appendices).

### **Quality appraisal**

Drawing on the Cochrane Handbook (Higgins and Green, 2011:s.8.5), the risk of bias within each quantitative study was assessed according to six criteria (selection bias, performance bias, detection bias, attrition bias, reporting bias, and other bias).

### **Data synthesis**

Data synthesis involved several stages.

Firstly, the Excel file describing all papers for review was sorted by context. Each paper was then described in long form arranged by context (police, courts, probation, etc.) and by type of intervention (brief intervention, pharmacological, etc). These descriptions provide the narrative summaries presented in Appendix 4 in a separate document (Further appendices).

Secondly, each long form description was summarised in one or two sentences (again, presented in Appendix 4). Summaries of studies with comparison groups were then assembled in a separate document, with attempts made to analyse them thematically. However, a thematic analysis proved profoundly difficult due to the multiple ways in which each intervention could be categorised.

Consequently, an exploratory Excel workbook and SPSS database were created (see Table 1). Crosstabs were used to explore the relationships between key features of interventions (including assessed risk of bias) and reported outcomes. To support this, some additional coding was needed. Thus, reported treatment effects were coded as:

- None<sup>11</sup>;
- Minor<sup>12</sup>; and
- Yes<sup>13</sup>.

Treatment duration and intensity were also coded. Psychosocial interventions were categorised as:

- Brief (<3 hours of face-to-face contact<sup>14</sup>);
- Moderate (3-10 hours); or
- High (>10 hours); or
- Variable (e.g. treatment matching to high / low intensity).

An additional category took the form of:

- Constant, long-term.

This comprised interventions such as transdermal alcohol monitoring anklets which were not psychosocial nor necessarily intensive; but which were persistent, unavoidable, and remained for at least six weeks.

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<sup>11</sup> i.e. no reported effect on alcohol outcomes.

<sup>12</sup> i.e. predominantly no effect on alcohol outcomes. For example, Stein et al. (2011) identified no effect of an alcohol brief intervention at one and six months, but some effects on some measures at 3 months.

<sup>13</sup> i.e. significant treatment effects reported on all or most alcohol outcome measures.

<sup>14</sup> Drawing on Newbury-Birch et al. (2016).



**Table 1. Summary of reviewed papers (sorted by author).**

Study	Article	Study	Context	Bias	Category	Intervention type	Intensity / length	Treatment effect
Andersson et al. (2012)	Mixed	Mixed	Probation	Low		Automated risk assessments Contingency management	Brief	Yes
Averill et al. (2018)	Men	Men	Courts	Med	Physical	plus transdermal monitoring	Constant	None
Begun, Rose and LeBel (2011)	Women	Women	Prison	High	Psychosocial	Motivational interviewing	Brief	Yes
Boit et al. (2018)	Mixed	Mixed	Courts	High	Sentencing	Treatment order	High	None
Bowen et al. (2006)	Mixed	Mixed	Prison	High	Psychosocial	Mindfulness meditation	Med	Yes
Chan et al. (2005)	Women	Women	Probation	High	CM	No theory specified	High	None
Chassin et al. (2009)	Young people		All	High	usual	No theory specified	Variable	Yes
Courtright, Berg and Mutchnick (2000)	Mixed	Mixed	Courts	High	Sentencing	Diversion from custody	Constant	None
D'Amico et al. (2013)	Young people		Courts	Low	Psychosocial	Motivational interviewing	Med	None
Davis et al. (2003)	Men	Men	Prison	Med	Psychosocial	Motivational interviewing	Brief	None
Dembo et al. (2000a; 2000b; 2001)	Young people		Courts	Med	Psychosocial	Family empowerment	High	Yes
Forsberg et al. (2011)	Men	Men	Prison	Med	Psychosocial	Motivational interviewing Collaborative behavioural management	Med	None
Friedman et al. (2011)	Men	Mixed	Probation	Low	CM	CBT / social learning	Med	None
Friedman, Terras and Glassman (2002)	Young people		Courts	Med	Psychosocial	Recovery management	Variable	None
Hser et al. (2013)	Mixed	Mixed	Resettlement	Low	CM	Supported housing	Med	None
Jason et al. (2017)	Women	Women	Resettlement	High	Practical	Collaborative behavioural management	High	None
Johnson et al. (2011)	Women	Mixed	Probation	Low	CM		Med	Yes
Kutin and Koutroulis (2003)	Mixed	Mixed	Probation	High	usual	Risk matching Acceptance and commitment	Variable	None
Lanza and Gonzalez-Mendez (2013)	Women	Women	Prison	Low	Psychosocial	Acceptance and commitment	High	Yes
Lanza and Gonzalez-Mendez (2014)	Women	Women	Prison	Low	Psychosocial		High	Yes
Lee et al. (2016)	Mixed	Mixed	Unspecified	Low	Pharmacological	Naltrexone	Constant	None
Marlowe et al. (2005)	Mixed	Mixed	Courts	Low	CM	Judicial monitoring	Med	Yes



Marlowe et al. (2007)	Mixed	Mixed	Courts	Med	CM	Judicial monitoring Contingency management	Variable	Yes
Mathias et al. (2018)	Mixed	Mixed	Police	Med	Physical	plus transdermal monitoring	Constant	Yes
McKendrick et al. (2006); Sullivan et al. (2007)	Men	Men	Prison	Low	Psychosocial	Therapeutic community	High	None
Naeem et al. (2005)	Mixed	Mixed	Courts	High	Sentencing	Treatment order	Variable	None
Newbury-Birch et al. (2014); Dienes, Coulter and Healther (2017)	Mixed	Mixed	Probation	Low	Psychosocial	Advice; lifestyle counselling Dialectical behavioural therapy	Brief	None
Nyamanthi et al. (2017)	Women	Women	Unspecified	Low	Psychosocial	Motivational interviewing	Med	Yes
Owens and McRady (2010)	Men	Men	Prison	Low	Psychosocial	Supported housing	Brief	Minor
Polcin et al. (2006)	Mixed	Mixed	Resettlement	High	Practical	Motivational interviewing	Unclear	None
Polcin et al. (2018)	Men	Mixed	Probation	Med	CM	Motivational interviewing	Med	None
Polcin et al. (2018)	Women	Mixed	Probation	Med	CM	Motivational interviewing	Med	Yes
Prendergast et al. (2011)	Mixed	Mixed	Probation	Low	CM	Strengths focused	Med	None
Prendergast et al. (2017)	Mixed	Mixed	Prison	Low	Psychosocial	Motivational interviewing	Brief	None
Sacks et al. (2012)	Women	Women	Prison	Med	Psychosocial	Therapeutic community	High	None
Scott and Dennis (2012)	Women	Women	Probation	Low	CM	Motivational interviewing	Brief	None
Springer et al. (2017)	Mixed	Mixed	Resettlement	Low	Pharmacological	Naltrexone	Constant	Minor
Stein et al. (2010)	Women	Women	Prison	Low	Psychosocial	Motivational interviewing	Brief	Minor
Stuart et al. (2010)	Men	Men	Courts	Low	Psychosocial	Motivational interviewing	Brief	Yes
Utter et al. (2013)	Mixed	Mixed	Police	Low	Psychosocial	Motivational interviewing	Brief	None
Van Stelle et al. (2004)	Men	Men	Prison	High	Psychosocial	Therapeutic community	High	Yes
Watt, Shepherd and Newcombe (2008)	Men	Men	Courts	Low	Psychosocial	Motivational interviewing	Brief	None
Wheeler et al. (2004)	Mixed	Mixed	Prison	Low	Psychosocial	Victim impact panel	Brief	None
Woodall et al. (2007)	Mixed	Mixed	Prison	Med	Psychosocial	Motivational interviewing	Med	Yes
Zlotnick, Johnson and Najavits (2009)	Women	Women	Prison	Low	Psychosocial	Seeking Safety	High	None

# Papers reviewed

## Included evidence

### Included studies

A Preferred Reporting Items for Systematic Reviews and Meta Analyses (PRISMA) flow chart for all searches (Moher et al., 2009) is presented in Figure 1. Individual PRISMA flow charts for separate searches can be found in Appendix 1.

Forty-eight papers reported on 44 comparative studies. No discernible pattern could be identified in the years of publication, with each year accounting for between one and six papers. Table 2 sets out the country in which interventions were delivered. Over three-quarters (N=34) were delivered in the US. Three were based in the UK. No other country produced more than two.

Figure 2. Summary PRISMA flow chart for all searches

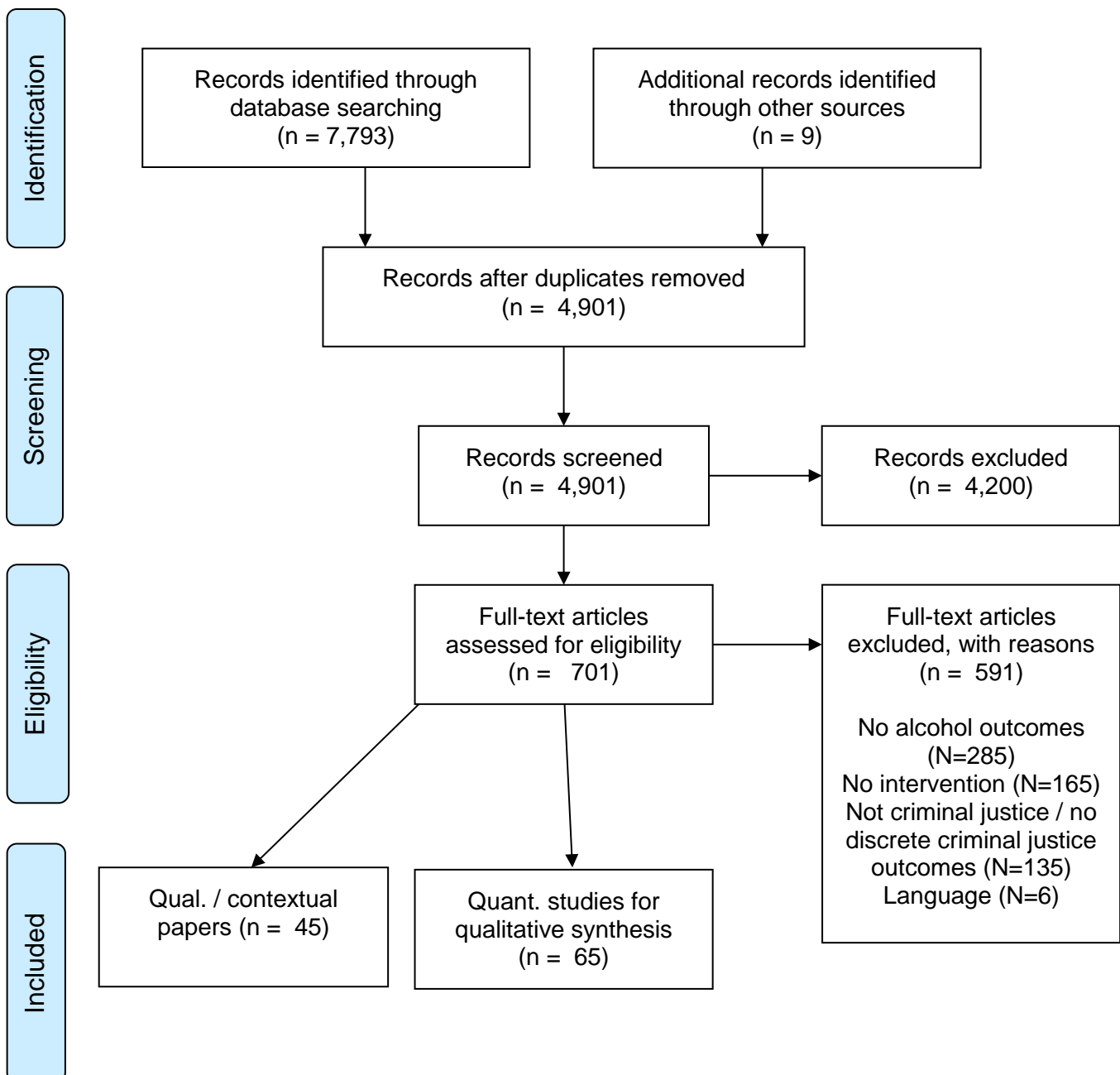


Table 2. Comparative studies' country of origin.

Country	Studies	Percent of all
US	34	77.2%
UK	3	6.8%
Sweden	2	4.5%
Spain	2	4.5%
Australia	1	2.3%
China	1	2.3%
Canada	1	2.3%

### Participants

All studies reported on people with alcohol (and sometimes drug) problems engaged at some point of the CJS.

Six papers from four studies<sup>15</sup> evaluated interventions focused on young people. Three of these incorporated combined samples of young men and young women<sup>16</sup>.

The 39 interventions focused on adults included eight studies that only engaged men<sup>17</sup>, 10 that only engaged women<sup>18</sup>, and 21 that recruited both<sup>19</sup>. The proportion of women engaged by mixed gender interventions ranged from 3%<sup>20</sup> to 60%<sup>21</sup>, with a mean of 23%. However, just one publication reported men and women's outcomes separately<sup>22</sup>. In one other instance, two papers reported separately on men and women's outcomes from the same study<sup>23</sup>.

<sup>15</sup> Dembo et al., 2000a; Dembo et al., 2000b; Dembo et al., 2001; Chassin et al., 2009; D'Amico et al., 2013; Friedman, Terras and Glassman 2002.

<sup>16</sup> Dembo et al., 2000a; Dembo et al., 2000b; Dembo et al., 2001; D'Amico et al., 2013; Friedman, Terras and Glassman 2002.

<sup>17</sup> Averill et al., 2018; Watt, Shepherd and Newcombe, 2008; Stuart et al., 2010; Owens and McRady, 2010; Davis et al., 2003; Forsberg et al., 2011; McKendrick et al., 2006; Sullivan et al., 2007; Van Stelle et al., 2004; Friedman et al., 2011.

<sup>18</sup> Nyamanthi et al., 2017; Johnson et al., 2011; Stein et al., 2010; Lanza and Gonzalez-Menendez, 2013; Lanza and Gonzalez-Menendez, 2014; Chan et al., 2005; Begun, Rose and LeBel, 2011; Jason et al., 2017; Zlotnick, Johnson, and Najavits, 2009; Scott and Dennis, 2012.

<sup>19</sup> Marlowe et al., 2005; Marlowe et al., 2007; Lapham and McMillan, 2013; Prendergast et al., 2011; Woodall et al., 2007; Polcin et al., 2018; Bowen et al., 2006; Hser et al., 2013; Wheeler et al., 2004; Prendergast et al., 2017; Courtright, Berg and Mutchnick, 2000; Boit et al., 2018; Naeem et al., 2005; Mathias et al., 2018; Utter et al., 2013; Andersson et al., 2012; Newbury-Birch et al., 2014; Dienes, Counter and Heather, 2017.

<sup>20</sup> Andersson et al., 2012; Boit et al., 2018.

<sup>21</sup> Lapham and McMillan, 2011.

<sup>22</sup> Polcin et al., 2018.

<sup>23</sup> Johnson et al., 2011; Friedmann et al., 2011.

## Settings

The majority of interventions were delivered in courts, prisons, or as a part of probation or parole. Most studies were clearly sited in a specific context. However, there was some overlap – particularly between parole and resettlement ('resettlement' was operationalised as post-prison support that was not identified as a part of parole), and police and US jails (jails were operationalised as prisons). This may partly explain the small number of reviewed studies focusing on police or resettlement settings.

Table 3. Comparative studies' setting

Setting	Number of studies	Proportion of studies
Pre-arrest, arrest, police custody	2	4.5%
Courts and sentencing	11	25.0%
Prison	15	34.1%
Probation and parole	9	20.5%
Resettlement and aftercare	4	9.1%
Unspecified	3	6.8%

As an addendum, it is worth noting that most studies could be reasonably assigned to a single stage of the CJS. There were no interventions that followed an individual as they progressed through (or out of) the system. This lack of integration has been highlighted as an issue in previous studies (e.g. Lloyd et al., 2017), with robust and conjoined throughcare being identified with improved outcomes in at least one substantive study (Olson and Rozhon, 2011).

## Interventions

Interventions were typologised in two ways. Firstly, as a means of managing the heterogeneity of the sample, they were allocated to a broad category (e.g. pharmacological; psychosocial). Secondly, they were allocated a more specific intervention 'type'. This sought to reflect the theory of change, psychosocial model, or mechanism underpinning an intervention (e.g. motivational interviewing; naltrexone).

As Table 4 sets out, the majority of interventions were categorised as psychosocial (N=23, 51.2%) with a further quarter of studies exploring the impact of adaptations to case management (N=10, 22.7%).

Table 4. Intervention category.

Category	Number of studies	Proportion of studies
Psychosocial	23	52.3%
Case management	10	22.7%
Sentencing option	3	6.8%
Pharmacological	2	4.5%
Physical (e.g. tag or restraint)	2	4.5%
Pragmatic (e.g. housing)	2	4.5%
Treatment as usual	2	4.5%

Within these broad categories only motivational interviewing received considerable attention as specific approach (N=14 studies, 31.8%). Therapeutic communities were assessed by three studies. No other approach was evaluated by more than two studies (in several instances, the only two studies focused on the same intervention were delivered by the same research team).

### Quality appraisal

Just over half (N=23, 52.3%) of studies were assessed as having a low risk of bias. Many of these were robustly implemented randomised controlled trials evidencing decent follow-up rates. A further 10 (22.7%) were assessed as having a moderate risk of bias, and the final eleven (25%) were assessed as having a high risk of bias.

### Outcomes

Outcome measures are described fully in Appendix 2, Table 2 (Further appendices). The majority of studies used the Addiction Severity Index (ASI), Alcohol Use Disorders Identification Test (AUDIT) or timeline followback. A small number used the Texas Christian University Drug Screen, with very small numbers using other validated or self-developed assessment tools.

## Intervention and study variables

### 1. Risk of bias

Studies' assessed risk of bias did not appear to play an appreciable part in structuring reviewed findings:

- 56.5% of studies with a low risk of bias (13 of 23) reported no effects.
- 50.0% of papers with a moderate risk of bias (five of 10) reported no effects.
- 54.5% of papers with a high risk of bias (six of 11) reported no effects.

Additionally, there were no clear patterns of bias within any set or subset of reviewed papers.

#### Conclusion

No appreciable patterns of bias likely to affect the conclusions of this review was identified found in any reviewed area, for any reviewed group, or for any kind of intervention of any duration.

### 2. Categories of intervention

No substantial, robust and consistent evidence of treatment effect (or no effect) on alcohol outcomes could be found for any broad category of intervention (e.g. pharmacological or psychosocial):

- Papers reporting on interventions categorised as case management, pharmacological, practical and psychosocial were divided in roughly equal proportions between those identifying treatment effects, and no treatment effects.
- None of the papers reporting on (a diverse set of) sentencing options (N=3) or practical resettlement support (N=3) reported positive outcomes.
- One study focused on young men and with a high risk of bias identified alcohol-related treatment effects arising from treatment as usual.

#### Conclusion

Based on the papers reviewed for this report, no conclusions can be drawn about which broad approaches to treatment are likely to be effective within the CJS.

### 3. Specific models of intervention

No substantial, robust and consistent evidence could be found for any theoretical framework structuring an intervention; though a preponderance of papers identified no effects arising from motivational interviewing.

- Fourteen papers reported on interventions structured according to the principles of motivational interviewing. A majority (seven out of 13) identified no treatment effect, and two more reported predominantly 'no effect' findings.
- No other approach was evaluated by more than three studies.

## Conclusion

As a body of reviewed evidence, these publications are heterogeneous and provide little support for any particular treatment approach. This noted, fewer than one-third of interventions based on motivational interviewing evidenced clear and consistent treatment effects.

## 4. Intensity of treatment

No substantial, robust and consistent evidence could be found for any theoretical framework structuring an intervention; though a preponderance of papers identified no effects arising from brief interventions.

- Twelve articles evaluated brief interventions. Of these, seven identified no effects and two reported predominantly 'no effect' findings.
- All other varieties of treatment intensity (moderate, high, constant and long-term, variable) were divided in roughly equal proportions between identifying treatment effects, and no effects.

## Conclusion

Based on the papers reviewed for this report, no conclusions can be drawn about the duration or intensity of alcohol treatment approaches most likely to be effective within the CJS. This noted, only a quarter of papers reporting on brief interventions noted clear and consistent treatment effects.

## Review by area of the CJS

### 1. Police

#### Summary

Two papers were reviewed which focused on interventions delivered at the point of, or shortly after, arrest<sup>24</sup>.

#### Interventions

##### Brief interventions

One study with a low risk of bias (Utter et al., 2013) compared screening (control) with screening plus a 30-45 minute brief intervention for people arrested for DUI (driving under the influence). After 90 days, the authors identified no treatment effects on alcohol use.

##### Contingency management

A study with a moderate risk of bias (Mathias et al., 2018) offered some indications that contingency management could reduce alcohol use. The study compared four contingency management conditions; after 10 weeks, people in the three conditions with contingent payments reduced their alcohol use significantly more than those receiving unconditional payments.

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<sup>24</sup> Within the main body of this report, the decision to focus exclusively on peer reviewed papers as part of this rapid review has led to the exclusion of two reports focusing on alcohol arrest referral within the UK.

## Conclusion

No conclusions about the efficacy (or otherwise) of interventions delivered in police custody can be drawn from the reviewed literature.

## 2. Courts and sentencing

### Overview

Eight papers<sup>25</sup> drawn from eight comparative studies focused on interventions delivered in courts or as a sentencing option. Five broad categories of intervention were identified.

### Interventions

#### Brief interventions

One UK study with a low risk of bias (Watt, Shepherd and Newcombe, 2008) compared the impact of screening (control) with screening plus a 10-15 minute brief intervention for people charged with alcohol-related violent offences. After three months, the authors identified no treatment effect on alcohol use.

#### Contingency management

A Canadian study (Averill et al., 2018) with a moderate risk of bias compared the alcohol outcomes of sentenced DUI volunteers within three contingency management conditions. There were no group differences on six-week alcohol outcomes between the three groups.

#### Diversion from custody

In a study with a high risk of bias, Courtright, Berg and Mutchnick (2000) identified no 3-month post-release differences in alcohol use between a control group of DUI offenders sentenced to 28 days in jail, and a treatment group allocated to home detention and tagging.

#### Judicial monitoring and supervision

Two studies assessed the impact of mandating individuals to treatment.

One UK study with a high risk of bias (Naeem et al., 2005) identified no 12-month impact on the alcohol use of drug users mandated to attend drug treatment, when compared with an uncontrolled case series of voluntary treatment seekers with offending histories.

A second study was based in the US (Boit et al., 2018) and has a high risk of bias. A 12-month retrospective case file analysis identified no significant differences in the residential treatment outcomes of individuals court-mandated to or voluntarily attending a residential treatment service.

Two US studies assessed the impact of drug courts' judicial monitoring on alcohol outcomes.

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<sup>25</sup> One additional piece of grey literature was identified (Watt and Shepherd, 2005), drawing on the same study and presenting the same findings as those of a paper reported on here (Watt, Shepherd and Newcombe, 2008).



The first (Marlowe et al., 2005) has a low risk of bias, and identified that more frequent hearings were associated with reduced ASI scores (but not with reduced consumption) after six months.

The second study (Marlowe et al., 2007) had a moderate risk of bias, and identified that risk-matching individuals to levels of supervision (high / low) significantly reduced both groups' six-month alcohol use when compared to an unmatched control group.

### Conjoined domestic violence interventions

One study (Stuart et al., 2010) with a low assessed risk of bias identified that a brief motivational interviewing intervention appended to a domestic violence programme reduced drinks per day after three months, with this effect diminishing by six and 12 months. The intervention also increased levels of alcohol abstinence.

### Risk of bias

Bias played no apparent role in distorting reported findings. A slightly higher proportion of studies with a high assessed risk of bias reported no effects when compared to other studies.

### Conclusion

The heterogeneity of the reviewed literature makes synthesis challenging. No conclusions about the efficacy (or otherwise) of interventions delivered in courts or as sentencing options can be drawn from the reviewed literature. Of all reviewed interventions, judicial supervision has the strongest and most consistent evidence base; but this comprises just two US studies. There may also be value in further evaluations of brief alcohol interventions appended to mandated domestic violence programmes.

## 3. Prison

### Summary

Papers reporting on four treatment approaches, evaluated by eight studies and reported by nine papers were reviewed. All reported on psychosocial initiatives, opening up improved potential for comparisons.

### Interventions

#### Brief interventions

Three studies assessed the impact of brief interventions.

In a study with a low risk of bias, Prendergast et al. (2017) compared risk-matched (intervention; ranging from 20 minutes of MI (low-risk) to MI and a referral to treatment (high-risk)) brief interventions with unmatched brief interventions (control). After 12 months, they identified no intervention effects on any measure of alcohol use.

In the second study, Owens and McRady (2010; low risk of bias) found that one hour of one-to-one MI (compared with watching two educational videos) was associated with no one-month effect on most measures of alcohol use; though significantly more prisoners in intervention conditions remained abstinent.

In the third, Davis et al. (2003; moderate risk of bias) compared the impact of screening only (control) with screening plus an hour of structured feedback (intervention). No treatment effects on alcohol use were identified after two months.

### Motivational interviewing

Two studies explored the impact of longer motivational interviewing interventions. Both evidenced a moderate risk of bias.

A Swedish study (Forsberg et al., 2011) found that two intervention conditions (five sessions of MI delivered by prison staff; five sessions of MI delivered by prison staff with ongoing supervision) led to no 10-month reductions in any measure of alcohol use when compared with control (five sessions of planning).

A second US substantial RCT (Woodall et al., 2007) identified that 10 sessions of group and one-to-one motivational interviewing intervention were associated with significant reductions in drinking days, drinks per day, and average blood alcohol content (BAC) after 6, 12, and 24 months for people convicted of DUI.

### Therapeutic communities

Three papers from two US studies reported on the impact of therapeutic communities (TC) for dually diagnosed prisoners.

The first (Van Stelle et al., 2004) had a high risk of bias, using people imprisoned before the TC was operational as case controls. The authors identified significant increases in abstinence in a TC cohort six months (but not twelve months) post-release.

The second paper had a low risk of bias (Sullivan et al., 2007) and found TC conditions associated with significant one-year reductions in ex-prisoners' drinking to intoxication, when compared to prisoners accessing a structured CBT programme.

The same treatment effects were not identified in a third paper (McKendrick et al., 2006) drawing on the same study, which had a moderate risk of bias (as it focused on a non-randomised / matched anti-social personality disorder (ASPD) subsample). It identified no significant reductions in drinking for TC participants either with or without ASPD after one year.

### Mindfulness

Bowen et al. (2006) reported on a US study with a high risk of bias, assessing the impact of an 11-hour per day two-week silent mindfulness meditation programme delivered to prisoners in a minimum-security wing. He identified significantly greater reductions in drinks per week in intervention vs control conditions six months after release.

### Victim impact panels

One study with a low risk of bias (Wheeler et al., 2004) identified no reductions in alcohol use or driving whilst intoxicated associated with participation in a Victim Impact Panel whilst serving a 28-day prison sentence (vs treatment as usual / prison plus no victim impact panel) after two months.

### Risk of bias

Of the four studies reporting substantive positive findings, two had a high risk of bias. Three-quarters of studies with a low risk of bias identified no effects (the fourth identified

minor effects). Of the three studies with a moderate risk of bias, two identified no treatment effects. The third identified positive reductions in alcohol use.

### Conclusion

No conclusions can be drawn about the efficacy of any kind of intervention within prison at reducing alcohol use. Studies were too heterogeneous to allow meaningful comparisons. When papers reported the findings of similar interventions, they often came to different conclusions. This noted, there may be value in further evaluations of therapeutic communities. Whilst both reported studies came from the same institution (and the same research team), the findings point in a consistently positive direction.

## 4. Probation and parole

### Summary

Seven papers were reviewed, reporting on six studies. Interventions followed four distinct approaches.

### Interventions

#### Brief interventions

Two papers with a low risk of bias and drawn from the same study reported on a brief intervention delivered in UK probation offices.

The first (Newbury-Birch et al., 2014) identified no six- or 12-month treatment effects on alcohol use from either intervention condition in a comparison of screening (control); screening plus a five-minute feedback intervention (intervention 1); or screening, five-minutes of feedback, and an offer of 20 minutes of lifestyle counselling (intervention 2). They identified no treatment effects.

In the second Dienes, Coulter and Heather (2017) re-analysed data from the same study, looking for signs of no effect. They identified no support for either the null or alternative hypothesis (within the probation setting).

#### Case management approaches

Three papers explored various approaches to probation or parole case management.

The first (Friedman et al., 2011) had a low risk of bias, and identified wide-ranging reductions in alcohol use for a group randomised to collaborative behavioural management (vs treatment as usual).

The second had a moderate risk of bias (Polcin et al., 2018), and identified no treatment effects related to alcohol use arising from motivational interviewing case management.

The third explored strengths-focused case management and has a low risk of bias (Prendergast et al., 2011). It identified no treatment effects on alcohol use.

#### Community services

Kutin and Koutroulis (2003) reported on a study with a high risk of bias, identifying that an Australian cohort of probationers risk-matched to treatment had 12-month outcomes that were similar to those of unmatched probationers.

### Automated telephone assessments

Andersson et al. (2012) reported on a Swedish study with a low risk of bias. Over 30 days, automated telephone assessments with feedback were associated with significantly greater reductions in alcohol use than automated telephone assessments alone.

### Risk of bias

Risk of bias did not play an appreciable role in shaping reviewed findings. Four of the six reviewed studies had a low risk of bias, with two of these identifying no treatment effects. The other two low-bias papers identified significant treatment benefits.

### Conclusion

No conclusions can be drawn about the efficacy of interventions delivered as part of probation or parole. Interventions are heterogeneous, though there were some signs of low-risk evaluations identifying positive treatment effects. These suggest that automated telephone risk assessments and collaborative case management may merit further investigation.

As an addendum, this is the only section that also reviews a paper that explicitly sought to identify evidence of no effect through Bayesian factor analysis (Dienes, Coulter and Heather, 2017). It specifically identifies no evidence for either the null or alternative hypothesis.

## 5. Resettlement

### Summary

Three papers drawn from three studies and reporting on three non-comparable types of intervention were reviewed.

### Interventions

#### Abstinence-focused supported housing

In one US study with a high risk of bias, Polcin et al. (2006) found no difference between the six-month drinking outcomes of people who had entered abstinence-focused supported housing from prison vs those with other entry pathways.

#### Case management

In a study with a low risk of bias (though aimed primarily at heroin dependent offenders) Hser et al. (2013) identified no three-month treatment effects on alcohol use arising from a recovery management intervention compared to control (treatment as usual).

#### Pharmacological

In a study with a low risk of bias, Springer et al. (2017) identified no main treatment effects of extended release naltrexone (vs placebo injections) on a wide variety of measures of alcohol consumption after six months. A treatment effect was, however, identified in participants aged 20-29 with a longer time to first drink associated with naltrexone prescribing.

### Risk of bias

Risk of bias has no effect on the findings reported here. One high risk of bias study reported no effects, as did one low risk study.

### Conclusion

Based on the small and heterogeneous body of evidence reviewed here, no conclusions can be drawn about interventions for alcohol use at the point of resettlement.

## 6. Interventions operating in unspecified areas of the CJS

### Summary

One paper reported on one comparative study engaging 'offenders'. It took a pharmacological approach.

### Interventions

#### Pharmacological

Lee et al. (2016) assessed the impact of extended release naltrexone on a cohort of opiate dependent offenders, compared with relapse prevention advice (control). The study has a low risk of bias; the authors identified no treatment effects related to alcohol consumption.

### Risk of bias

Only one paper was identified and reviewed.

### Conclusion

On the basis of the evidence reviewed here, no conclusions can be drawn about the efficacy (or otherwise) of interventions aimed at generic 'offenders' within the CJS.

## 7. Young people

### Summary

Six papers were reviewed, reporting on four evaluations of four alcohol treatment approaches. All engaged young people within the CJS.

### Interventions

#### Motivational interviewing

In a US study with a low risk of bias, D'Amico et al. (2013) identified no effect of six sessions of MI on alcohol use, when compared to control conditions (a similar number of 12-step groups).

#### Treatment as usual

In a study with a high risk of bias, Chassin et al. (2009) retrospectively reviewed the treatment outcomes of young offenders who had engaged with any variety of treatment service whilst engaged with CJS. They identified that those who accessed any form of treatment (short or long, individual or group) had significantly better alcohol outcomes than those who did not.

### Family empowerment intervention

In a series of three papers with a moderate risk of bias, Dembo et al. (2000a; 2000b; 2003) explored the impact of a 10-week family empowerment intervention involving home visits and mandated family meetings. Whilst young people allocated to the intervention reduced the frequency with which they got 'very drunk' significantly more than those in the control group after one year, these differences were not apparent after four years.

### Multimodel treatment

In a study with a moderate risk of bias, Friedman, Terras and Glassman (2002) found that up to 55 sessions of cognitive behavioural / social learning treatment had no impact on the drinking outcomes of court-adjudicated young men.

### Risk of bias

The body of literature reviewed is too small for conclusions to be drawn. This noted, treatment effects were identified by one paper with a high risk of bias, and one with a moderate risk of bias. No treatment effects were identified by one paper with a low risk of bias, and a second with a moderate risk of bias.

### Conclusion

On the basis of the literature reviewed, no conclusions can be drawn about the efficacy (or otherwise) of alcohol-related interventions for young people within the CJS.

## 8. Women

### Summary

Twelve articles were reviewed, reporting on 10 studies.

Considerably more interventions could be reported on here, were it not for a sex-blind approach to analysis that characterised much of the reviewed literature. Twenty-one studies engaged both men and women. Arising from these, one study resulted in a single paper that distinguished women's outcomes from those of men (Polcin et al., 2018). A second study reported women's and men's outcomes in separate papers (Johnson et al., 2011; Friedman et al., 2011). Nineteen studies that recruited both men and women provided no gendered analysis at all.

### Interventions

#### Brief interventions

Two papers explored brief interventions.

The first had a low risk of bias, with Stein et al. (2010) comparing screening followed by a brief intervention with screening only. They identified some improvements in abstinence three months after release for the intervention group but no benefits at either one or six months.

The second (Begun, Rose and LeBel, 2011) focused on women detained pre-sentence or on remand and evidenced a high risk of bias. Assessment and a brief intervention was compared with treatment as usual. In the 20% who were followed up after two months, those who underwent the intervention evidenced greater reductions in AUDIT scores.

### Therapeutic communities

Sacks et al. (2006) identified no treatment effects on alcohol use arising from a modified, trauma-aware prison therapeutic community six months after release when compared to treatment as usual (90 hours of CBT). The study has a moderate risk of bias.

### Acceptance and commitment therapy

Two Spanish studies with a low risk of bias report on ACT.

The first (Lanza and Gonzalez-Mendez, 2013) compared a 16-week ACT intervention with a waiting list control group, finding a significant reduction in six-month post-prison alcohol use in the intervention group.

The second (Lanza et al., 2014) compared ACT, CBT and a waiting list control group. The authors identified that ACT reduced alcohol use significantly more than control; CBT had no effect.

### Seeking safety

One study explored the impact of 12 groups of manualised CBT in addition to treatment as usual (full-time 12-step treatment) on alcohol use and trauma for imprisoned women in the US. It has a low risk of bias, with Zlotnick, Johnson and Najavits (2009) identifying no reductions in alcohol use arising from programme when compared with control.

### Dialectical behavioural therapy

Reporting on an intervention for homeless ex-offenders, Nyamanthi et al. (2017) identified that a low-intensity 12-week DBT programme was associated with significantly greater levels of alcohol abstinence than a health promotion intervention of identical intensity / length. The study has a low risk of bias.

### Probation case management

Three studies explored the impact of changes to probation case management.

Chan et al. (2005) compared the outcomes of high-intensity, low-caseload case management with treatment as usual, in a study with a high risk of bias. The authors identified no intervention effects on alcohol use.

The second study (Johnson et al., 2011; men's outcomes reported in Friedman et al. (2011) earlier) had a low risk of bias and explored the impact of a 12-week collaborative behavioural management intervention (one contact per week) compared to probation as usual, finding significantly greater reductions in alcohol use within the intervention group. Women in intervention conditions were much more likely to be alcohol abstinent than those in control conditions.

Finally, in a study with a moderate risk of bias Polcin et al. (2018) cluster-randomised residents in sober living houses to either treatment as usual or enhanced MI case management (three sessions in month one, thereafter monthly). They identified that intervention conditions were associated with significantly greater levels of alcohol abstinence after 12 months.

### Recovery management check-ups

In a study with a low risk of bias, Scott and Dennis (2012) assessed the impact of monthly motivational interviewing check-ups vs treatment as usual on women released from jail. They identified no treatment effects on women's alcohol use after 30, 60 or 90 days.

### Abstinence-focused supported housing

Jason et al. (2017) compared the treatment outcomes of women accessing an abstinence-focused supported housing scheme following release from prison with those of women without such support. The study has a high risk of bias. After six and 12 months, no treatment effect on alcohol use was identified.

### Risk of bias

Risk of bias does not appear to have substantively distorted the findings reported here. Of the six studies reporting treatment effects, four had a low identified risk of bias. Indeed, across all sections of this review, publications with a low risk of bias were most likely to identify minor or substantive treatment effects when exclusively engaging women.

### Conclusion

The heterogeneity of interventions reported here does not allow firm conclusions to be drawn. This noted, there were some approaches that may warrant further evaluation. Clear treatment effects were identified in two evaluations of acceptance and commitment therapy. Both were conducted by the same team; this approach may benefit from wider implementation. As for men, treatment effects were also associated with collaborative behavioural management. Again, this may benefit from further exploration, as may dialectical behavioural therapy.

Additionally, some points on gender are worth making. Two interventions that engaged both men and women (Polcin et al., 2018; Johnson et al., 2011<sup>26</sup>) identified stronger alcohol-related treatment effects for women than for men. Moreover, when comparing the treatment outcomes of women with those of mixed studies and those focused exclusively on men, there were again indications that women within the CJS may benefit more (or may benefit more frequently) from alcohol interventions (see Table 5, and Chart 1).

These findings need to be approached with caution. They draw on a heterogeneous set of interventions evaluated by heterogeneous means. Nonetheless, they tie into a broader body of literature asserting the need for a gendered approach and setting out the distinctive outcomes that women can attain.

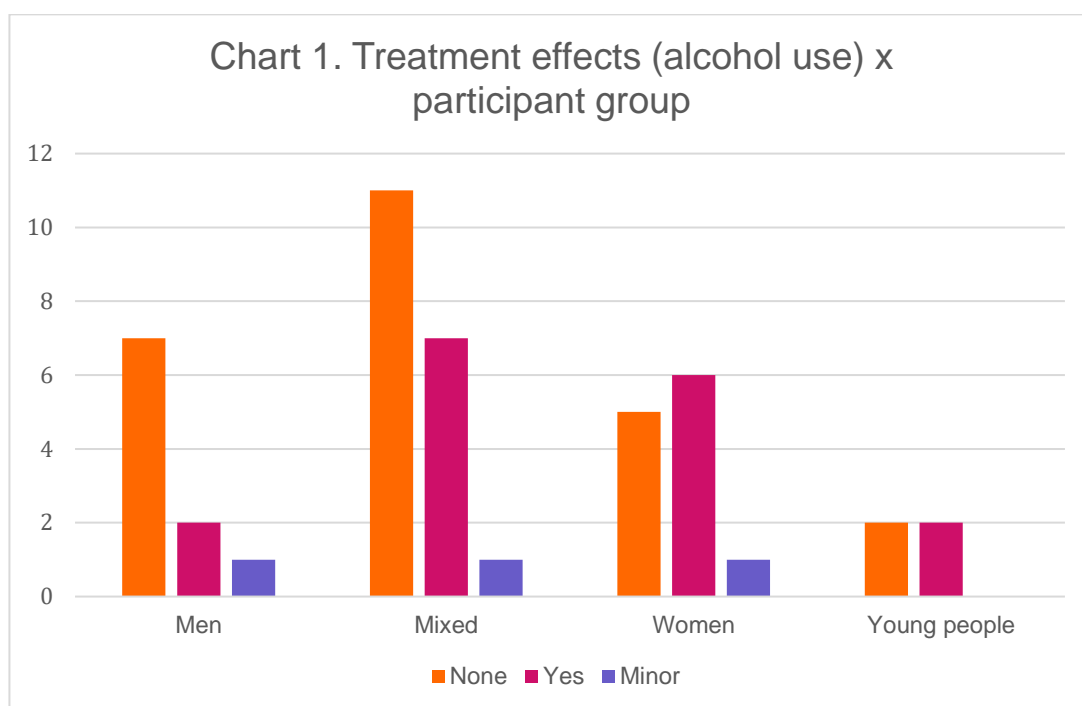
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<sup>26</sup> Men's outcomes in Friedman et al., 2011.



Table 3. Intervention participants x treatment effect (alcohol use).

Participants	No effects	Minor effects	Substantial effects
Men	7 (70%)	1 (10%)	2 (20%)
Women	5 (41.7%)	1 (8.3%)	6 (50%)
Mixed	11 (57.9%)	1 (5.3%)	7 (36.8%)
Young people	2 (50%)	0 (0%)	2 (50%)



## Conclusion and recommendations

To mix metaphors, this review has identified some potentially promising seeds upon a generally muddy canvas. Some approaches, evaluated by a handful of studies, offer some promise. However, the papers reporting them were all too often derived from just one study, just one setting, or just one research team. Other interventions or approaches were evaluated somewhat more but appear less promising. This was particularly the case for interventions focused exclusively on men; brief interventions; and interventions based on motivational interviewing.

A core challenge in identifying treatment effects is the heterogeneity of reviewed studies. Few approaches have been repeatedly implemented and evaluated in a way that permits treatment effects for alcohol use to be identified. Newbury-Birch et al. (2016; 2018) note that this is partly due to the difficulties of following up imprisoned cohorts following release, and this is clearly true of prison-based interventions. However, interventions in other contexts and domains evidenced similar difficulties.

Whilst acknowledging these difficulties, some recommendations can be made regarding research.

- Firstly, women's outcomes should be reported. Female offenders and treatment seekers differ from men in terms of their needs (e.g. Corston, 2007; Covington, 2011) and treatment outcomes (e.g. Grace, 2017; Kennedy et al., 2012:56). In this review, 19 of 21 mixed-sex studies reported no women's outcomes. This creates a real gap in research knowledge.
- Secondly, there is potential for a review of the impact of alcohol interventions on offending outcomes. 285 papers were excluded from this review because they reported no alcohol outcomes. Many of these instead drew on routinely collected offending data. Whilst this was beyond the reach of this study, these papers have the potential to add significantly to understandings of the relationship between alcohol and crime, and the social benefits of alcohol interventions within the CJS.
- Thirdly, the lack of treatment effect for men identified in this review would benefit from more attention.

There are also two recommendations for policy and practice.

- Firstly, many offenders have very high levels of need. Those leaving prison – even from intensive treatment programmes – may be facing imminent homelessness (e.g. Lloyd et al., 2017). In this context, it is perhaps unsurprising that brief interventions may struggle to deliver substantive outcomes (Newbury-Birch et al., 2018). A clear fit between needs and treatment intensity has the potential to pay dividends; but delivering light-touch interventions to seriously marginalised populations may be optimistic.
- Secondly, interventions within this review mostly targeted a single stage of the CJS. Few interventions followed an individual as they progressed through the CJS, and even fewer followed them for a considerable period of time. This can create a 'cliff-edge of support' on release (Lloyd et al., 2017). There may be real benefit in designing interventions that meaningfully follow individuals over the course of a treatment journey, even if this involves working through across multiple stages of the CJS (see, for example, Olson and Rozhon, 2011).

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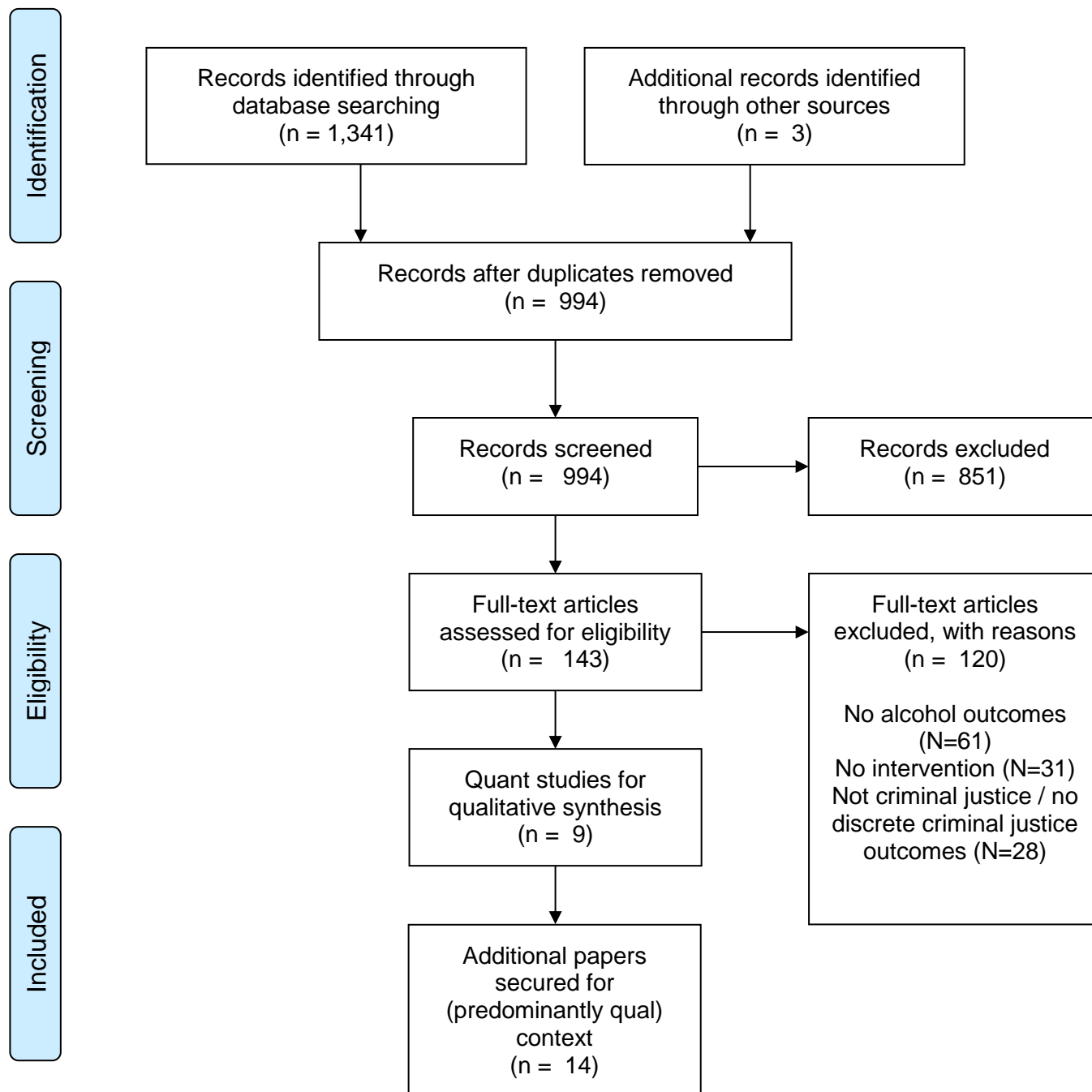
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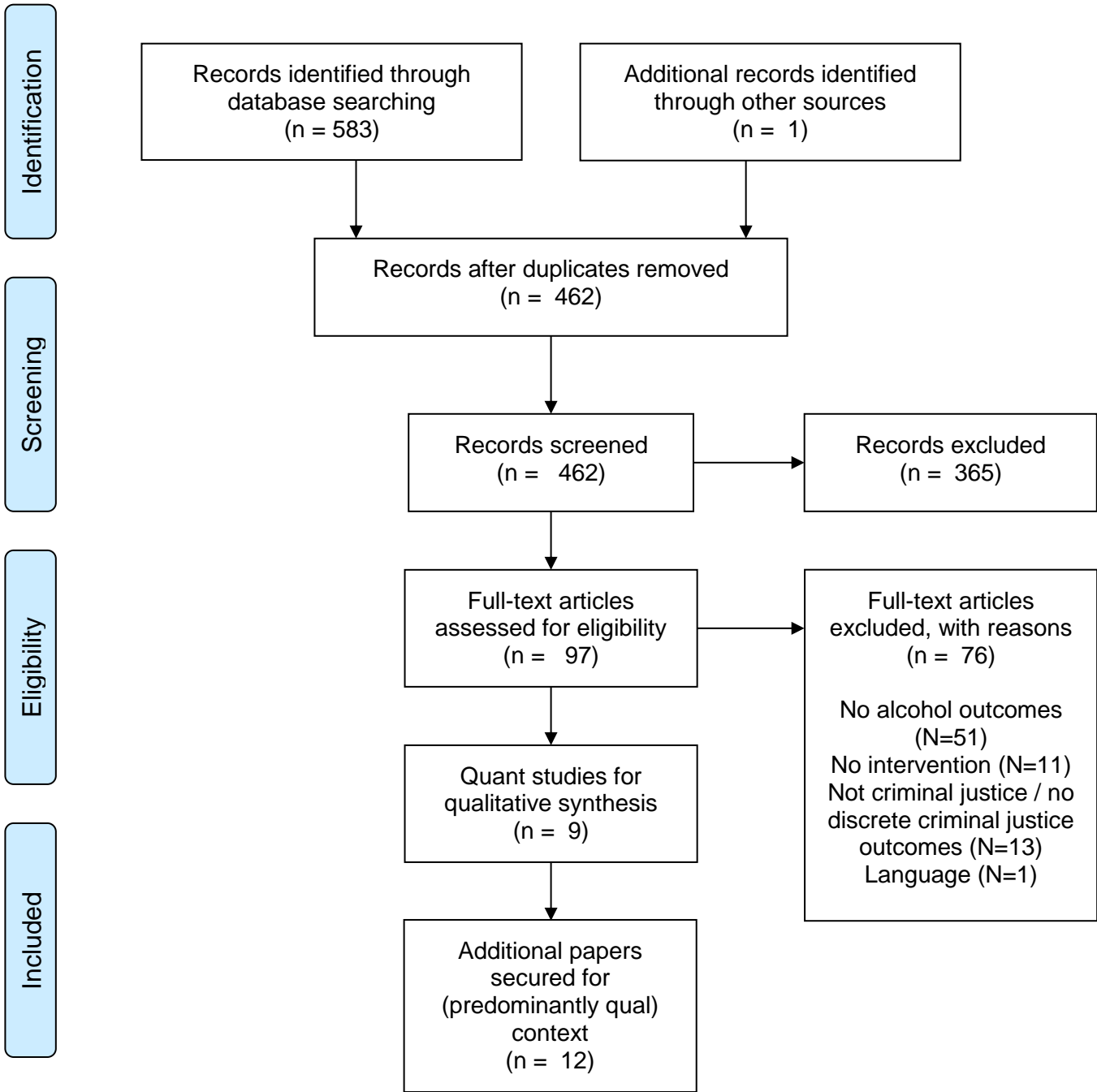


# Appendix 1. PRISMA flow charts for individual searches

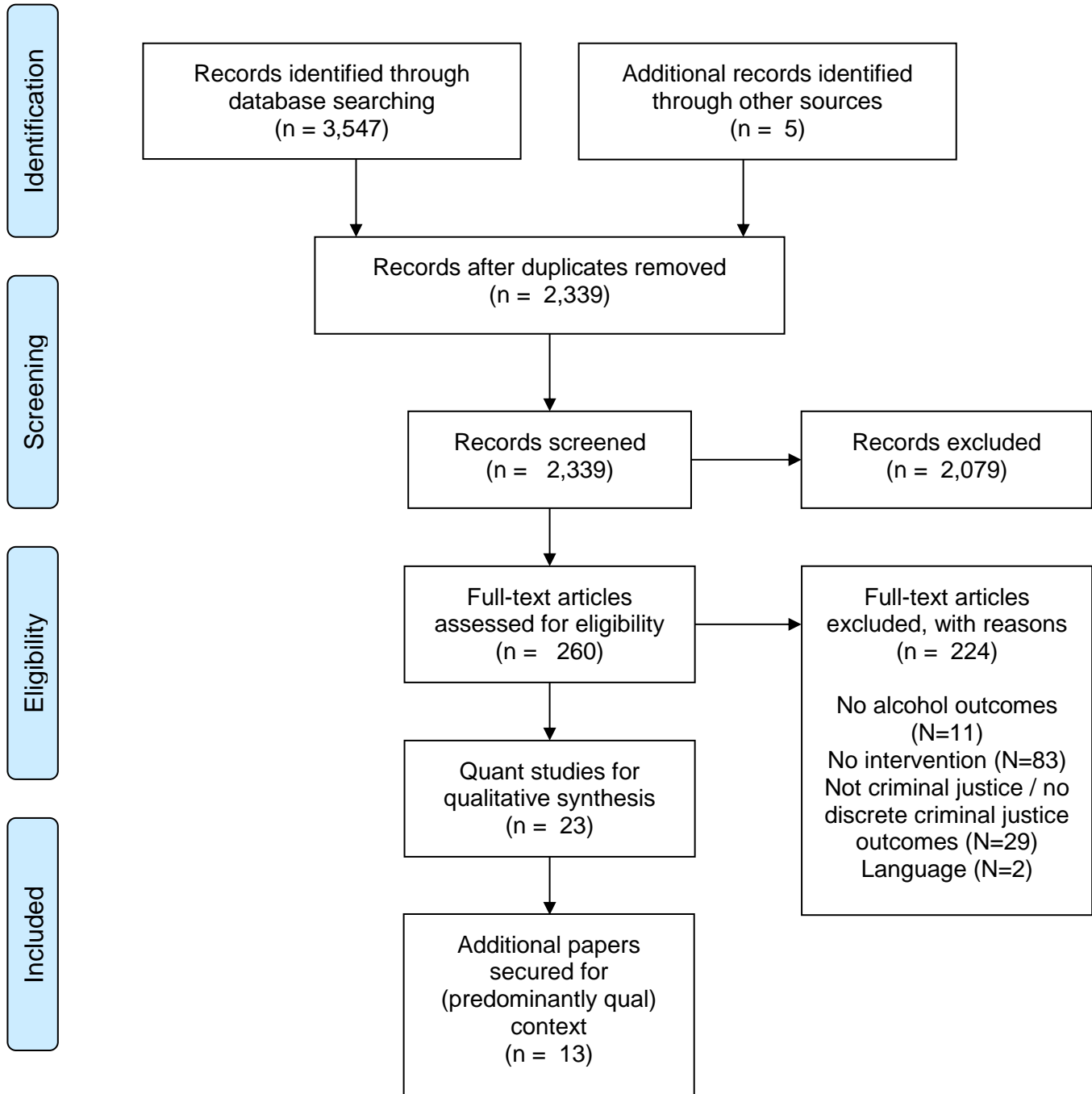
## Police



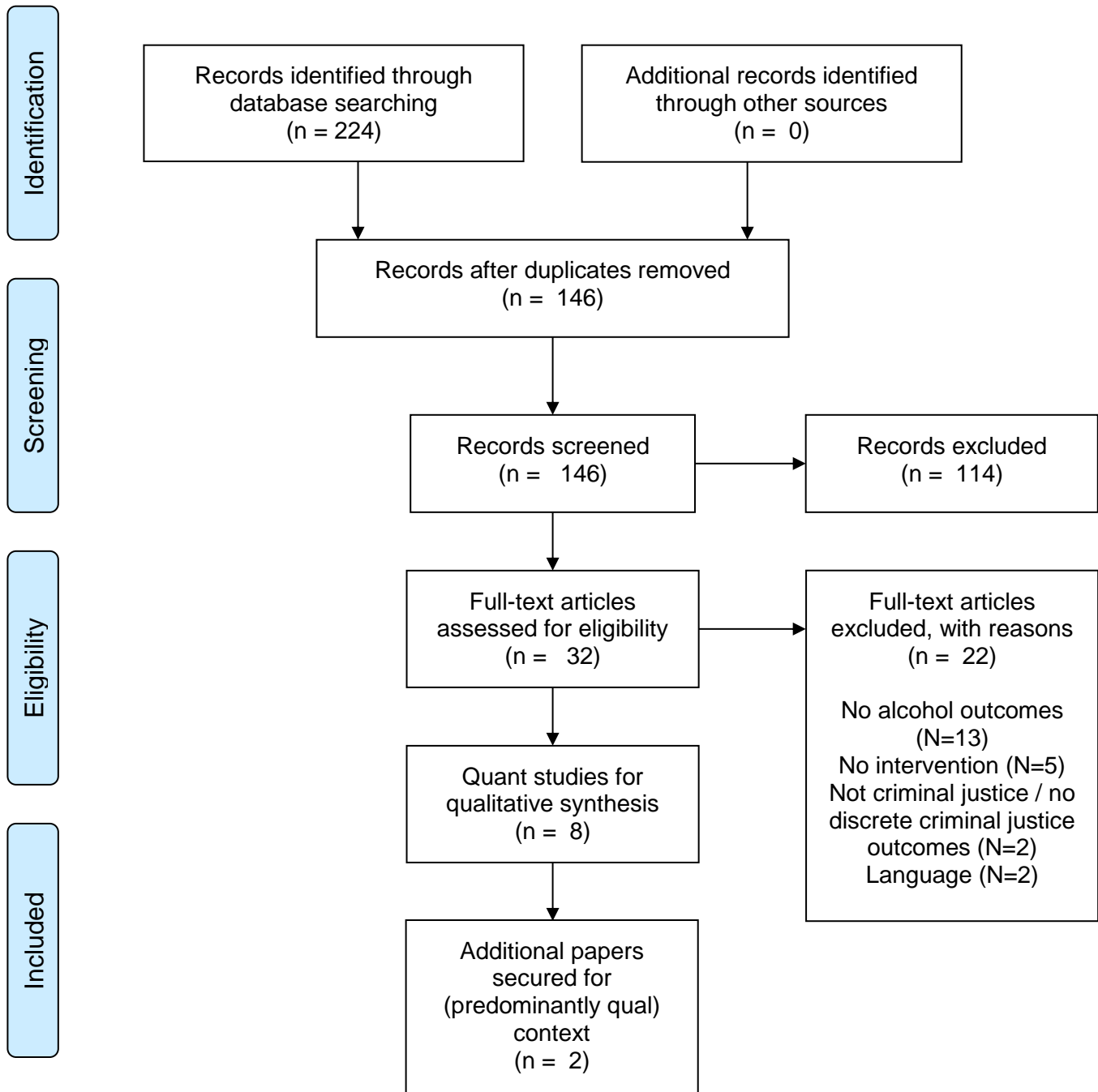
# Courts



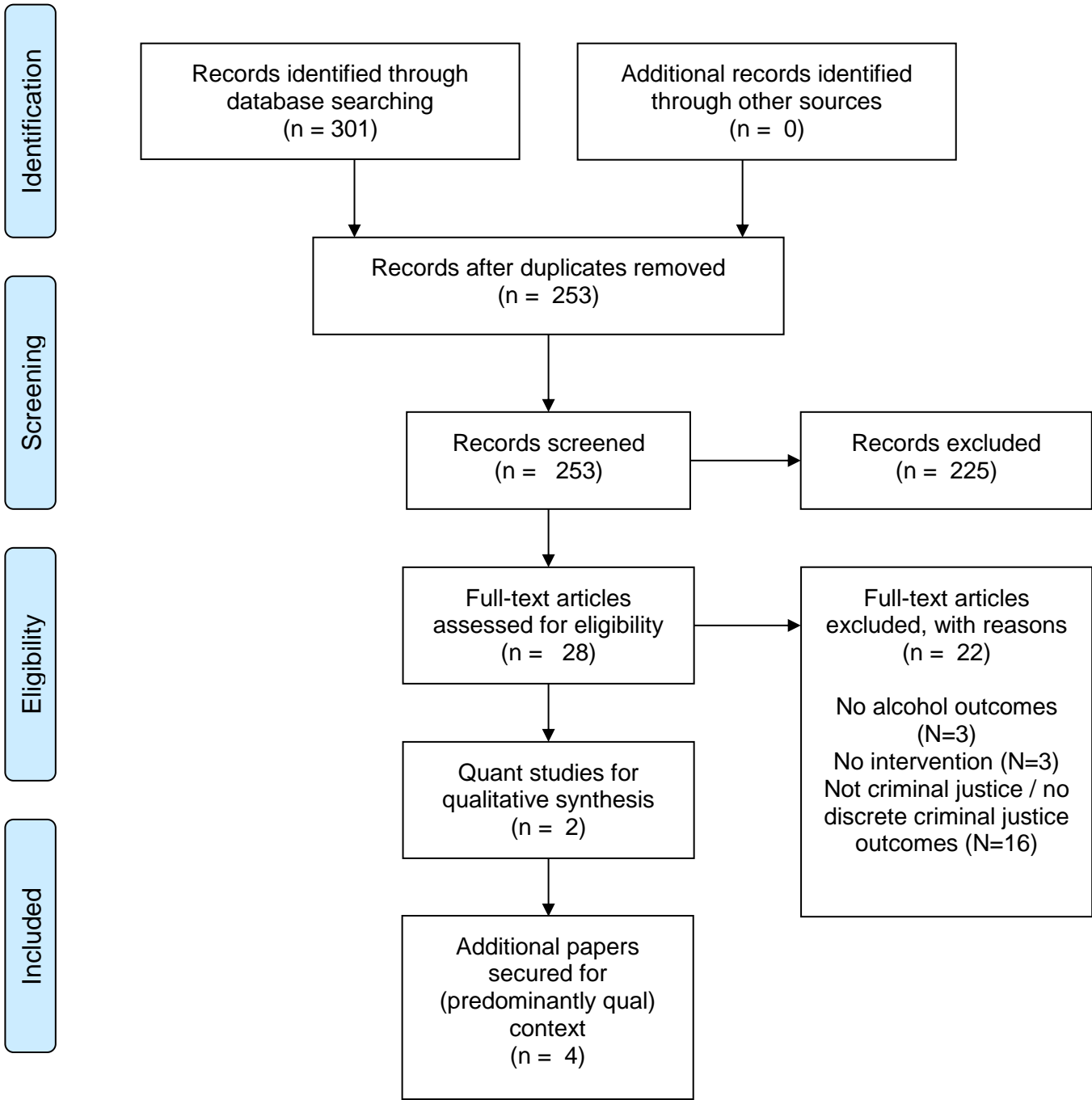
# Prison



# Probation and parole



# Resettlement



## Offence- and offender-focused

