

A literature review about the prevalence and identification of people with an intellectual disability within Court Liaison and Diversion Services.

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SCHOLARONE™ Manuscripts A literature review about the prevalence and identification of people with an intellectual disability within Court Liaison and Diversion Services.

Purpose

Expert consensus is that people with an intellectual disability are over represented across the Criminal Justice Setting. Primary research studies have been conducted in police stations and prisons but little is known about the prevalence of this population in the Court setting. A literature review was conducted to find out more about the prevalence of defendants with an intellectual disability in Court.

Design/method/approach

A literature review was conducted using standard systematic review methodology (Higgins & Green 2011) and the PRISMA reporting guidelines (Moher et al., 2009).

Findings

Two papers met the inclusion criteria and were critically appraised. The papers reported prevalence findings ranging from 10-20%.

Limitations/implications

Differences in study design, sampling, recruitment and diagnostic criteria affect the ability to make comparisons or synthesise findings.

Practical implications

It is important that future primary and secondary research studies standardise operational terms to enable true comparison between studies, systematic reviews and evidence syntheses.

Social Implications

Defendants with an intellectual disability need to be identified to enable Criminal Justice Professionals to make reasonable adjustments to proceedings and consider diversion and alternative disposal options. This will likely improve outcomes for this population and reduce recidivism.

Originality/value

This literature review contributes to the growing evidence base about meeting the criminal justice needs of people with a learning disability and recognition of the increased prevalence across the Criminal Justice System and specifically within the Court setting.

Introduction

People with an intellectual disability are overrepresented in the criminal justice system (CJS) (Hellenbach *et al.* 2017) and particularly in prison setting (Hayes 2007, Søndenaa *et al.* 2008, and Mason & Murphy 2002) and to a lesser degree in police stations (Young *et al.*, 2013; McKinnon 2015). However little is known about the numbers of people with an intellectual disability in the Court setting. This literature review examines prevalence and identification of people with an intellectual disability in the Court setting.

Background

People with an intellectual disability have a unique set of needs relating to their disability. These can include difficulties in understanding information, acquiescence, suggestibility and poor decision making during the CJS process (Murphy & Mason 2014) in some cases leading to false confessions (Gudjonsson & McKeith 1994). Furthermore, people with an intellectual disability are more likely to experience multiple mental and physical health comorbidities across the life span (Cooper *et al.* 2015) which can deteriorate or be more likely to present in criminal justice environments. There is evidence that people with an intellectual disability face significant inequalities in accessing justice, healthcare services, and opportunities for diversion to health and social care services (Murphy & Mason 2014; Talbot & Riley 2007). Access to such services can lead to reduced recidivism, improved health outcomes and quality of life, where the risk to the public is low (Talbot & Riley 2007; Bradley 2009). Therefore, it is imperative that this population is identified so that they can be given the opportunity to fully access health and justice services during all stages of the criminal justice process.

Court Liaison and Diversion Services (CL&D) were developed to address this need by diverting those with mental illness or other vulnerabilities such as intellectual disability, autism spectrum disorders and attention deficit hyperactivity disorders out of the criminal justice system. CL&D services have existed in different formats in the UK since the 1980s however their implementation and functions vary between countries and jurisdictions (Srivastava et al. 2013). Moreover, with little statutory guidance and operational variations, mental illness and associated risks have often been prioritised over other vulnerabilities (Dyer 2013). In the light of this and increasing numbers of people with a mental illness or intellectual disability found across the criminal justice system, the UK government commissioned a review of the its criminal justice system. This review, known as 'The Bradley Report' (Bradley 2009) raised specific concerns about people with an intellectual disability including: poor

identification and a lack of 'consensus in defining the boundaries between intellectual disability, borderline intellectual disability and learning difficulty'; along with no agreement on the most effective way to identify and assess this vulnerable population (Bradley 2009 p20). In 2014, NHS England launched a national operating manual to standardise CL&D services and to collect datasets to measure effectiveness and outcomes (NHS England 2014). The operating manual also specified that CL&D Services should be able to identify and screen for vulnerabilities such as intellectual disabilities (NHS England 2014) as did national guidance about offender mental health (NICE 2017). However, neither guidance specifies how to do this. Therefore the challenges to understanding how many people with an intellectual disability use CL&D services and how indeed they are identified persist.

Prevalence of intellectual disability across the criminal justice system

Prison

A review of the literature has found that there is a variation in estimates of intellectual disability prevalence across prison services. In the UK, figures from No One Knows (Talbot, 2008) suggest that assuming a prison population of 82 000, there will be around 5740 people with an IQ <70 and about 20 500 with an IQ 71−80. A primary study by Hayes et al. (2007) took a random sample of 140 prisoners from one English prison, their IQ was measured using standardised, validated diagnostic assessments of cognitive function and adaptive function and found that 7.1% had an IQ ≤70. A later study by Young et al. (2017) screened 390 English prisoners for the presence of an intellectual disability, autism or ADHD and detected rates of 9%, 9% and 25% respectively. A Norwegian primary study (Söndenaa et al., 2008) of prisoners screened for the presence of an intellectual disability using the Wechsler Abbreviated Scale of Intelligence (Wechsler, 1999) and the Hayes Ability Screening Index (Hayes, 2000). A random selection of 143 prisoners were examined of whom 15 prisoners (10.8%) had an IQ below 70; this figure increased to 23% when borderline IQ (IQ<79) was included.

Evidence from two systematic reviews (Fazel *et al.*, 2008; Hellenbach *et al.* 2017) were also considered. Fazel et al. (2008) completed a systematic review of 10 primary studies totaling 11,969 prisoners. A pooled prevalence rate could not be calculated due to the heterogeneity of the sample however a descriptive analysis found a prevalence of between 0.5-1.5%. Hellenbach *et al.* (2017) completed a systematic review of four papers published after the time frame used by Fazel et al., (2008). Due to *'significant methodological incoherencies'* such as differences in definition,

classification and assessment of intellectual disability across the studies a meta-analysis was not possible. Hellenbach et al. (2017) reported prevalence rates of intellectual disability to be between 4-69%. The systematic review highlighted significant rates of psychiatric comorbidity and substance misuse amongst this population indicating the clinical importance of being able to identify this population and offer appropriate services.

Police Stations

In English police stations Gudjonsson (1993) carried out IQ tests on 156 police detainees. They found that 9% had a full-scale IQ of <70 and that a further 42% had a full-scale IQ of <79). In Northern Ireland, Scott et al. (2006) screened 9000 police custody records and found that one per cent of prisoners showed signs of an intellectual disability. A third study, based in an inner London custody suite, invited those brought into custody to participate in a screening programme using the Learning Disability Screening Questionnaire (LDSQ) (McKenzie et al., 2012) to identify detainees with an intellectual disability. 195 detainees completed the LDSQ of which 13 (6.7%), positively screened for the presence of an intellectual disability (Young et al. 2013).

Probation

Mason and Murphy published three key papers about intellectual disabilities and probation in 2002. These papers presented an initial scoping study where probation officers asked questions about the likely presence of intellectual disability of probationers and found that 5.7% met intellectual disability diagnostic criteria (Mason & Murphy 2002a). A second paper was published detailing the development of an intellectual disability screening tool for probation officers based on the findings of the scoping study; the Learning Disabilities in the Probation Service (LIPS) (Mason & Murphy 2002b). The LIPS comprises two brief tests of cognitive function and went on to be used in the final study that reported on the prevalence of intellectual disabilities in the probation service. Mason & Murphy screened 90 probationers for the presence of intellectual disability using the LIPS. They found that six individuals (7%) had an IQ of <70 and that 17 (19%) had an intellectual disability or were functioning at borderline levels (2002c).

The range of prevalence estimates across the CJS illustrate the challenges with identifying this population. The literature has also shown that differences in study methods, diagnostic criteria and

definitions of an intellectual disability can account for some variation in the prevalence figures given.

A literature review of the prevalence in the Court setting can help to increase knowledge about this and therefore target services to better meet the needs of this population.

Method

The research question and search strategy were developed using the PEO framework as outlined in table 1.

Table 1 PEO framework

Participants	Exposure	Outcome
Adults with ID	Criminal Justice	Detection
	System	Screening
	Liaison &	Identification
	Diversion Court	
	(Magistrate or	
	Crown)	outcomes
		identification
		appropriate adult

The PEO formulated the research question as 'How many PIDs are identified in the Court?'. Study designs that could provide the best answers to this question could include:

- Cohort studies
- Secondary Analysis of existing data
- Systematic Reviews
- Prospective descriptive studies
- Evaluation studies

Search Strategy

This review was conducted in accordance with standard systematic review methodology (Higgins & Green 2011) and the PRISMA reporting guidelines (Moher *et al.* 2009). Four electronic databases were systematically searched in July 2018 for studies published from the inception of the database

to date). These included Cumulative Index to Nursing and Allied Health (CINAHL), Embase, Medline, and PsychINFO, A set of search terms was devised using facet analysis, Boolean operators; subject headings, keywords and truncation as shown in Table 2.

Table 2 Facet Analysis

Concept 1 AND	Concept 2 AND	Concept 3 AND
intellectual disability (subject	identification	criminal justice service
heading for UK and Europe based	(subject heading)	(subject heading)
Psychinfo and CINAHL)		
	OR	OR
OR		court OR
	identif* OR	magistrate court OR
mental retardation (subject heading)	detect* OR	crown court OR
for Medline only as based in USA	screen* OR	custody OR
	diagnos* OR	remand OR
OR	assessment	prison OR
		probation
learning disabilit* OR		
neurodevelopmental dis* OR		
developmental dis*		

Standard search limits of English language papers and studies involving adults were applied. Error! vas c Reference source not found. shows the inclusion and exclusion criteria that was used to find relevant papers.

Table 3 Inclusion and exclusion criteria

Inclusion	Exclusion
Adults with an ID (≥18years)	Children and young people with ID
Research studies, qualitative and quantitative	 Non-ID populations
Published in English Language	 Populations mixed with other
Criminal Court setting	neurodevelopmental disorders such as Autism
	or ADHD
	 Published in other languages
	Family Courts

The results were filtered by title and abstract, then full text articles of the eligible manuscripts were read and either excluded or included in the literature review. In total 3555 articles were screened of AISM, se et al. 20.
nenting evidenc which 13 met eligibility criteria for a full text review, see PRISMA flow diagram (see figure 1). Two papers met the inclusion criteria (Vanny et al. 2009; Burke et al. 2012) and were critically appraised using the 'Checklists for finding, appraising and implementing evidence' (Greenhalgh 2014).



Figure 1 PRISMA (2009) Flow Diagram

Identification Screening Eligibility

Records identified through Medline (n = 1499)

Records identified through **CINAHL** (n = 6)

Records identified through PsychInfo (n = 2007)

Records identified through EMBASE (n=21) Records identified other (n=2)

Records after duplicates removed (n = 3535)

Records screened (n=3535)

Titles/abstracts irrelevant (n=3522)

(n = 63)

Full-text articles assessed for eligibility (n=13)

Full-text articles excluded, with reasons (n=11)

- Pre-trial detention (Vinkers 2013; Crocker et al. 2007)
- •ID screening tool description (Ali & Scott 2016; Hayes 2002; Mason & Murphy 2002; Silva et al. 2015);
- •Editorial (Lindsay et al. 2011)
- Only discussed the effectiveness of L&D Services (Scott et al. 2013)
- •Conflated ID with other neurodevelopmental disorders (Seck et al. 2017)

Described youth custody (Haysom et al., 2014)

 Described generic issues about people with an intellectual disability in the CJS (Talbot & Jacobson 2010).

Studies included in literature review (n=2)

Included

60

Results

The two included papers were quantitative studies that explored the identification and prevalence of people with an intellectual disability in a Court setting. The first study described the American CJS and Mental Health Courts (Burke et al. 2012) and the second study took place in a Magistrates Court in New South Wales, Australia (Vanny et al. 2009).

The American Mental Health Court (MHC) paper studied existing Court data to identify defendants with an intellectual disability and determine the prevalence of: people with an intellectual disability; people with an intellectual disability with a mental illness or substance misuse; index offences; and Court outcomes. The Australian paper carried out primary research amongst defendants in a Magistrates Court and recruited participants to undergo psychometric and functional skills testing to he results ability in the supresented in tal. identify people with an intellectual disability. The results on the identification and subsequent prevalence of people with an intellectual disability in the Courts varied from 10% to 20%. A summary of the included studies and their findings is presented in table 4.

Table 4 Included papers

Author	Method	Participants	Sample Size	Setting	Main findings	Strengths and weaknesses
Burke et	Cross-sectional study.	Mental health	n=93 people	Mental	11.6% defendants	Highlighted increased prevalence and need for services.
al. 2012	Court records were read	court defendants	with an	Health	had intellectual	
USA	and coded according to	with and without	intellectual	Court, USA	disability (93/841).	The study was reliant on the accuracy of the records that they
	researchers' criteria to	IDs (N=841)	disability			searched.
	determine presence of	42/			Defendants with	
	intellectual disability.	9/			intellectual disability	Changes in USA special schooling could have affected the
	Those with intellectual		J,°		more likely to be	identification of people with an intellectual disability in the
	disability were compared		1.5		African American and	records.
	to those without.		9	4.	younger.	
			14	111.		
				1///	No difference in	
				1	personal	
					characteristics,	
					mental health care or	
					types of offence.	
Vanny et	Not stated.	Adults >18years	N=250	Four Courts	10% IQ<70	Participants may not be representative of the wider population.
al. 2009	Participants were	from custody or	defendants	in New		4 ().
Australia	screened for intellectual	community who	were screened.	South	20% IQ<79	Reveals that defendants with low IQs but who are not
	disability. Then diagnostic	attended four		Wales,		intellectually disabled are likely to benefit from intellectual
	assessments of ID	Courts	n=60	Australia		disability support mechanisms.
	(cognitive and social		defendants			10/:
	functioning tests) were		went on to have			19/100
	undertaken		full diagnostic			1/0/ >
			assessment			$\mathcal{S}^{\mathcal{A}}$

Discussion

The findings from the review about the prevalence of people with an intellectual disability in the Court setting suggest a prevalence rate of up to 10% which is significantly higher than the global prevalence of intellectual disability of one per cent (Maulik *et al.* 2011). The results on the identification and subsequent prevalence of people with an intellectual disability in the two Court papers in this literature review varied from 10% to 20%.

The variations in prevalence can be explained by differences in study design and methods, sampling and recruitment, and choice of diagnostic criteria. For example, the study by Burke et al. (2012) relied on existing Court reports where Court health and social care staff decided about the presence of ID based on the defendants' self-reporting and access to medical records. Moreover, where a diagnosis was not clear the Court health and social care staff made a clinical judgement based on DSM Axis I-V criteria (American Psychiatric Association 2013). This approach is open to subjectivity and a risk of bias from the Court staff.

The study by Vanny et al (2009), which reported the highest prevalence rate, included those with both intellectual disability (IQ<70) and borderline intellectual disability (IQ<79) which could explain why the prevalence rate is so much higher than the study by Burke et al. (2012) who had a cut off of an IQ<70. The definition and diagnostic criteria to determine intellectual disability can vary internationally and this has been a critique of the research in the field and a limitation when attempting systematic reviews about it (Murphy & Mason, 2014; Jones, 2007). Furthermore, as defendants self-selected to participate in the study there is a risk of selection bias. Therefore, although all participants had an equal chance of being selected to participate in the study by Vanny et al. (2009), their motivations to do so could bias it. For example, it is known that some people with an intellectual disability may not come forward to participate in such studies for fear of stigmatisation and a desire to mask their difficulties and 'fit in' (Talbot & Jacobson, 2010). It is also possible that defendants without an intellectual disability may try to feign being intellectually disabled as they consider this may offer less restrictive sentencing or exemption from criminal responsibility (Merton & Rogers, 2017). The researchers could have considered randomising participants to receive the psychometric testing or not which would have reduced the risk of bias. Subsequently, the results from Vanny et al. (2009) should be interpreted with caution as the sample may not have been truly representative. However, their method of administering psychometric

testing of intelligence and social functioning is considered the gold standard for identifying and diagnosing an intellectual disability (The British Psychological Society 2015) and is more robust than relying on existing Court records as chosen by Burke et al. (2012).

There is no agreement on the best screening tool(s) to use to detect the likely presence of an intellectual disability. This is for a number of reasons, for example, some screening tools are known to be over inclusive and may provide false positives. For example, the mean IQ amongst prisoners is lower than that of the wider population which can cause difficulties when differentiating between those who have low levels of functioning and those with a diagnosable intellectual disability. Additionally, the presence of health comorbidities that may require immediate assistance can divert attention away from other needs (Silva et al. 2015). This can be compounded by a lack of awareness about intellectual disabilities or available training to inform its identification (Bradley 2009; Talbot & Jacobson 2010). That said, under the requirements of PACE, CJS staff need to identify 'mental vulnerability' and therefore even if a defendant does not have an intellectual disability but does screen positive then it is likely that they will still fall under the category of mental vulnerability and therefore be entitled to assistance and adjustments (Hayes, 2002; Vanny, 2009). Additionally, the high paced, frenetic CJS environment is not conducive to undertaking full diagnostic assessments which typically involve an IQ test such as the WAIS-r III (Wechsler, 2008) and measures of social functioning such as the Vineland Adaptive Behaviour Scale (Sparrow et al. 1984) or specialist measures of mental health for intellectual disability and autism such as the Psychiatric Assessment Schedule for Adults with Developmental Disabilities (Moss 1998). Such testing can only be carried out by experienced clinicians and they are time consuming and not conducive to the environments of the CJS (McKinnon & Finch 2018).

Limitations

Only two papers were retrieved during this literature review and the study designs of each were different therefore a comparison between the prevalence rates cannot be made. Both studies revealed weaknesses in their design and a risk of bias therefore the findings should be interpreted with caution.

Conclusion

This literature review has demonstrated that there is a paucity of studies investigating the prevalence and identification of defendants with an intellectual disability in the Courts. The existing studies indicate that prevalence of people with an intellectual disability in the CJS is greater than the

prevalence of intellectual disability in the general population and there is consensus amongst researchers that this population is over represented across the CJS. The studies also revealed that there is an increase in psychiatric and physical health comorbidities amongst this population which can complicate their journey through the CJS (Vanny *et al.* 2009; Søndenaa *et al.* 2010; Hellenbach *et al.* 2017). The variations in prevalence can be explained by differences in study design and methods, sampling and recruitment, and choice of diagnostic criteria. It is therefore important that future primary and secondary research studies standardise operational terms to enable true comparison between studies, systematic reviews and evidence syntheses. This could include the standardisation of screening tools for use in the CJS, as is currently missing from the NHS operating manual (NHS England 2014).

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A literature review about the prevalence and identification of people with an intellectual disability within Court Liaison and Diversion Services.

Purpose

Expert consensus is that people with an intellectual disability are over represented across the Criminal Justice Setting. Primary research studies have been conducted in police stations and prisons but little is known about the prevalence of this population in the Court setting. A literature review was conducted to find out more about the prevalence of defendants with an intellectual disability in Court.

Design/method/approach

A literature review was conducted using standard systematic review methodology (Higgins & Green 2011) and the PRISMA reporting guidelines (Moher et al., 2009).

Findings

Two papers met the inclusion criteria and were critically appraised. The papers reported prevalence findings ranging from 10-20%.

Limitations/implications

Differences in study design, sampling, recruitment and diagnostic criteria affect the ability to make comparisons or synthesise findings.

Practical implications

It is important that future primary and secondary research studies standardise operational terms to enable true comparison between studies, systematic reviews and evidence syntheses.

Social Implications

Defendants with an intellectual disability need to be identified to enable Criminal Justice Professionals to make reasonable adjustments to proceedings and consider diversion and alternative disposal options. This will likely improve outcomes for this population and reduce recidivism.

Originality/value

This literature review contributes to the growing evidence base about meeting the criminal justice needs of people with a learning disability and recognition of the increased prevalence across the Criminal Justice System and specifically within the Court setting.

Introduction

People with an intellectual disability are overrepresented in the criminal justice system (CJS) (Hellenbach *et al.* 2017) and particularly in prison setting (Hayes 2007, Søndenaa *et al.* 2008, and Mason & Murphy 2002) and to a lesser degree in police stations (Young *et al.*, 2013; McKinnon 2015). However little is known about the numbers of people with an intellectual disability in the Court setting. This literature review examines prevalence and identification of people with an intellectual disability in the Court setting.

Background

People with an intellectual disability have a unique set of needs relating to their disability. These can include difficulties in understanding information, acquiescence, suggestibility and poor decision making during the CJS process (Murphy & Mason 2014) in some cases leading to false confessions (Gudjonsson & McKeith 1994). Furthermore, people with an intellectual disability are more likely to experience multiple mental and physical health comorbidities across the life span (Cooper *et al.* 2015) which can deteriorate or be more likely to present in criminal justice environments. There is evidence that people with an intellectual disability face significant inequalities in accessing justice, healthcare services, and opportunities for diversion to health and social care services (Murphy & Mason 2014; Talbot & Riley 2007). Access to such services can lead to reduced recidivism, improved health outcomes and quality of life, where the risk to the public is low (Talbot & Riley 2007; Bradley 2009). Therefore, it is imperative that this population is identified so that they can be given the opportunity to fully access health and justice services during all stages of the criminal justice process.

Court Liaison and Diversion Services (CL&D) were developed to address this need by diverting those with mental illness or other vulnerabilities such as intellectual disability, autism spectrum disorders and attention deficit hyperactivity disorders out of the criminal justice system. CL&D services have existed in different formats in the UK since the 1980s however their implementation and functions vary between countries and jurisdictions (Srivastava et al. 2013). Moreover, with little statutory guidance and operational variations, mental illness and associated risks have often been prioritised over other vulnerabilities (Dyer 2013). In the light of this and increasing numbers of people with a

mental illness or intellectual disability found across the criminal justice system, the UK government commissioned a review of the its criminal justice system. This review, known as 'The Bradley Report' (Bradley 2009) raised specific concerns about people with an intellectual disability including: poor identification and a lack of 'consensus in defining the boundaries between intellectual disability, borderline intellectual disability and learning difficulty'; along with no agreement on the most effective way to identify and assess this vulnerable population (Bradley 2009 p20). In 2014, NHS England launched a national operating manual to standardise CL&D services and to collect datasets to measure effectiveness and outcomes (NHS England 2014). The operating manual also specified that CL&D Services should be able to identify and screen for vulnerabilities such as intellectual disabilities (NHS England 2014) as did national guidance about offender mental health (NICE 2017). However, neither guidance specifies how to do this. Therefore the challenges to understanding how many people with an intellectual disability use CL&D services and how indeed they are identified persist.

Prevalence of intellectual disability across the criminal justice system

Prison

A review of the literature has found that there is a variation in estimates of intellectual disability prevalence across prison services. In the UK, figures from No One Knows (Talbot, 2008) suggest that assuming a prison population of 82 000, there will be around 5740 people with an IQ <70 and about 20 500 with an IQ 71−80. A primary study by Hayes et al. (2007) took a random sample of 140 prisoners from one English prison, their IQ was measured using standardised, validated diagnostic assessments of cognitive function and adaptive function and found that 7.1% had an IQ ≤70. A later study by Young et al. (2017) screened 390 English prisoners for the presence of an intellectual disability, autism or ADHD and detected rates of 9%, 9% and 25% respectively. A Norwegian primary study (Söndenaa et al., 2008) of prisoners screened for the presence of an intellectual disability using the Wechsler Abbreviated Scale of Intelligence (Wechsler, 1999) and the Hayes Ability Screening Index (Hayes, 2000). A random selection of 143 prisoners were examined of whom 15 prisoners (10.8%) had an IQ below 70; this figure increased to 23% when borderline IQ (IQ<79) was included.

Evidence from two systematic reviews (Fazel *et al.*, 2008; Hellenbach *et al.* 2017) were also considered. Fazel et al. (2008) completed a systematic review of 10 primary studies totaling 11,969 prisoners. A pooled prevalence rate could not be calculated due to the heterogeneity of the sample

however a descriptive analysis found a prevalence of between 0.5-1.5%. Hellenbach *et al.* (2017) completed a systematic review of four papers published after the time frame used by Fazel et al., (2008). Due to *'significant methodological incoherencies'* such as differences in definition, classification and assessment of intellectual disability across the studies a meta-analysis was not possible. Hellenbach et al. (2017) reported prevalence rates of intellectual disability to be between 4-69%. The systematic review highlighted significant rates of psychiatric comorbidity and substance misuse amongst this population indicating the clinical importance of being able to identify this population and offer appropriate services.

Police Stations

In English police stations Gudjonsson (1993) carried out IQ tests on 156 police detainees. They found that 9% had a full-scale IQ of <70 and that a further 42% had a full-scale IQ of <79). In Northern Ireland, Scott et al. (2006) screened 9000 police custody records and found that one per cent of prisoners showed signs of an intellectual disability. A third study, based in an inner London custody suite, invited those brought into custody to participate in a screening programme using the Learning Disability Screening Questionnaire (LDSQ) (McKenzie et al., 2012) to identify detainees with an intellectual disability. 195 detainees completed the LDSQ of which 13 (6.7%), positively screened for the presence of an intellectual disability (Young et al. 2013).

Probation

One UK paper about probation was found. Mason & Murphy (2002a) screened 90 probationers for the presence of intellectual disability using a probation service screening tool. The Learning Disabilities in the Probation Service (LIPS) tool comprises two brief tests of cognitive function and is designed to be used by probation officers (Mason & Murphy 2002b). They found that six individuals (7%) had an IQ of <70 and that 17 (19%) had an IQ of <79.

The range of prevalence estimates across the CJS illustrate the challenges with identifying this population. The literature has also shown that differences in study methods, diagnostic criteria and definitions of an intellectual disability can account for some variation in the prevalence figures given. A literature review of the prevalence in the Court setting can help to increase knowledge about this and therefore target services to better meet the needs of this population.

Method

The research question and search strategy were developed using the PEO framework as outlined in table 1.

Table 1 PEO framework

Participants	Exposure	Outcome	
Adults with ID	Criminal Justice	Detection	
	System		
		Screening	
	Liaison &		
		Identification	
	Diversion Court		
	(Magistrate or		
	Crown)	outcomes	
	U',		
		identification	
		appropriate adult	

The PEO formulated the research question as 'How many PIDs are identified in the Court?'. Study designs that could provide the best answers to this question could include:

- Cohort studies
- Secondary Analysis of existing data
- Systematic Reviews
- Prospective descriptive studies
- Evaluation studies

Search Strategy

This review was conducted in accordance with standard systematic review methodology (Higgins & Green 2011) and the PRISMA reporting guidelines (Moher *et al.* 2009). Four electronic databases were systematically searched in July 2018 for studies published from the inception of the database to date). These included Cumulative Index to Nursing and Allied Health (CINAHL), Embase, Medline,

and PsychINFO, A set of search terms was devised using facet analysis, Boolean operators; subject headings, keywords and truncation as shown in Table 2.

Table 2 Facet Analysis

Concept 1 AND	Concept 2 AND	Concept 3 AND
intellectual disability (subject	identification	criminal justice service
heading for UK and Europe based	(subject heading)	(subject heading)
Psychinfo and CINAHL)		
	OR	OR
OR		court OR
	identif* OR	magistrate court OR
mental retardation (subject heading)	detect* OR	crown court OR
for Medline only as based in USA	screen* OR	custody OR
	diagnos* OR	remand OR
OR	assessment	prison OR
		probation
learning disabilit* OR		
neurodevelopmental dis* OR		
developmental dis*		

Standard search limits of English language papers and studies involving adults were applied. **Error! Reference source not found.** shows the inclusion and exclusion criteria that was used to find relevant papers.

Table 3 Inclusion and exclusion criteria

Inclusion	Exclusion
Adults with an ID (≥18years)	Children and young people with ID
Research studies, qualitative and quantitative	Non-ID populations
Published in English Language	Populations mixed with other
Criminal Court setting	neurodevelopmental disorders such as Autism
	or ADHD
	Published in other languages

Family Courts

The results were filtered by title and abstract, then full text articles of the eligible manuscripts were read and either excluded or included in the literature review. In total 3555 articles were screened of which 13 met eligibility criteria for a full text review, see PRISMA flow diagram (see figure 1). Two papers met the inclusion criteria (Vanny *et al.* 2009; Burke *et al.* 2012) and were critically appraised using the 'Checklists for finding, appraising and implementing evidence' (Greenhalgh 2014).



Figure 1 PRISMA (2009) Flow Diagram

Identification

Records identified through Medline (n = 1499) Records identified through CINAHL (n = 6) Records identified through PsychInfo (n =2007)

Records identified through EMBASE (n=21) Records identified other (n= 2)

Screening

Eligibility

review (r

Records after duplicates removed (n =3535)

Records screened (n=3535)

, ,

Titles/abstracts irrelevant (n=3522)

(n = 63)

Full-text articles assessed for eligibility (n=13)

Studies included in literature review (n=2)

Full-text articles excluded, with reasons (n=11)

- Pre-trial detention (Vinkers 2013; Crocker et al. 2007)
- •ID screening tool description (Ali & Scott 2016; Hayes 2002; Mason & Murphy 2002; Silva et al. 2015);
- •Editorial (Lindsay et al. 2011)
- •Only discussed the effectiveness of L&D Services (Scott et al. 2013)
- Conflated ID with other neurodevelopmental disorders (Seck et al. 2017)

Described youth custody (Haysom et al., 2014)

• Described generic issues about people with an intellectual disability in the CJS (Talbot & Jacobson 2010).

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Results

The two included papers were quantitative studies that explored the identification and prevalence of people with an intellectual disability in a Court setting. The first study described the American CJS and Mental Health Courts (Burke et al. 2012) and the second study took place in a Magistrates Court in New South Wales, Australia (Vanny et al. 2009).

The American Mental Health Court (MHC) paper studied existing Court data to identify defendants with an intellectual disability and determine the prevalence of: people with an intellectual disability; people with an intellectual disability with a mental illness or substance misuse; index offences; and Court outcomes. The Australian paper carried out primary research amongst defendants in a Magistrates Court and recruited participants to undergo psychometric and functional skills testing to a result
villity in the C
presented in table identify people with an intellectual disability. The results on the identification and subsequent prevalence of people with an intellectual disability in the Courts varied from 10% to 20%. A summary of the included studies and their findings is presented in table 4.

Table 4 Included papers

Author	Method	Participants	Sample Size	Setting	Main findings	Strengths and weaknesses
Burke et	Cross-sectional study.	Mental health	n=93 people	Mental	11.6% defendants	Highlighted increased prevalence and need for services.
al. 2012	Court records were read	court defendants	with an	Health	had intellectual	
USA	and coded according to	with and without	intellectual	Court, USA	disability (93/841).	The study was reliant on the accuracy of the records that they
	researchers' criteria to	IDs (N=841)	disability			searched.
	determine presence of	49/	_		Defendants with	
	intellectual disability.	9/			intellectual disability	Changes in USA special schooling could have affected the
	Those with intellectual		Ji.		more likely to be	identification of people with an intellectual disability in the
	disability were compared		Disa		African American and	records.
	to those without.			4.	younger.	
			1	111.		
				1///	No difference in	
				(personal	
				,	characteristics,	
					mental health care or	
					types of offence.	
Vanny et	Not stated.	Adults >18years	N=250	Four Courts	10% IQ<70	Participants may not be representative of the wider population.
al. 2009	Participants were	from custody or	defendants	in New		4 ()
Australia	screened for intellectual	community who	were screened.	South	20% IQ<79	Reveals that defendants with low IQs but who are not
	disability. Then diagnostic	attended four		Wales,		intellectually disabled are likely to benefit from intellectual
	assessments of ID	Courts	n=60	Australia		disability support mechanisms.
	(cognitive and social		defendants			10/;
	functioning tests) were		went on to have			4//
	undertaken		full diagnostic			1/0/ >
			assessment			$\mathcal{F}_{\mathcal{R}}$

Discussion

The findings from the review about the prevalence of people with an intellectual disability in the Court setting suggest a prevalence rate of up to 10% which is significantly higher than the global prevalence of intellectual disability of one per cent (Maulik *et al.* 2011). The results on the identification and subsequent prevalence of people with an intellectual disability in the two Court papers in this literature review varied from 10% to 20%.

The variations in prevalence can be explained by differences in study design and methods, sampling and recruitment, and choice of diagnostic criteria. For example, the study by Burke et al. (2012) relied on existing Court reports where Court health and social care staff decided about the presence of ID based on the defendants' self-reporting and access to medical records. Moreover, where a diagnosis was not clear the Court health and social care staff made a clinical judgement based on DSM Axis I-V criteria (American Psychiatric Association 2013). This approach is open to subjectivity and a risk of bias from the Court staff.

The study by Vanny et al (2009), which reported the highest prevalence rate, included those with both intellectual disability (IQ<70) and borderline intellectual disability (IQ<79) which could explain why the prevalence rate is so much higher than the study by Burke et al. (2012) who had a cut off of an IQ<70. The definition and diagnostic criteria to determine intellectual disability can vary internationally and this has been a critique of the research in the field and a limitation when attempting systematic reviews about it (Murphy & Mason, 2014; Jones, 2007). Furthermore, as defendants self-selected to participate in the study there is a risk of selection bias. Therefore, although all participants had an equal chance of being selected to participate in the study by Vanny et al. (2009), their motivations to do so could bias it. For example, it is known that some people with an intellectual disability may not come forward to participate in such studies for fear of stigmatisation and a desire to mask their difficulties and 'fit in' (Talbot & Jacobson, 2010). It is also possible that defendants without an intellectual disability may try to feign being intellectually disabled as they consider this may offer less restrictive sentencing or exemption from criminal responsibility (Merton & Rogers, 2017). The researchers could have considered randomising participants to receive the psychometric testing or not which would have reduced the risk of bias. Subsequently, the results from Vanny et al. (2009) should be interpreted with caution as the sample

may not have been truly representative. However, their method of administering psychometric testing of intelligence and social functioning is considered the gold standard for identifying and diagnosing an intellectual disability (The British Psychological Society 2015) and is more robust than relying on existing Court records as chosen by Burke et al. (2012).

There is no agreement on the best screening tool(s) to use to detect the likely presence of an intellectual disability. This is for a number of reasons, for example, some screening tools are known to be over inclusive and may provide false positives. For example, the mean IQ amongst prisoners is lower than that of the wider population which can cause difficulties when differentiating between those who have low levels of functioning and those with a diagnosable intellectual disability. Additionally, the presence of health comorbidities that may require immediate assistance can divert attention away from other needs (Silva et al. 2015). This can be compounded by a lack of awareness about intellectual disabilities or available training to inform its identification (Bradley 2009; Talbot & Jacobson 2010). That said, under the requirements of PACE, CJS staff need to identity 'mental vulnerability' and therefore even if a defendant does not have an intellectual disability but does screen positive then it is likely that they will still fall under the category of mental vulnerability and therefore be entitled to assistance and adjustments (Hayes, 2002; Vanny, 2009). Additionally, the high paced, frenetic CJS environment is not conducive to undertaking full diagnostic assessments which typically involve an IQ test such as the WAIS-r III (Wechsler, 2008) and measures of social functioning such as the Vineland Adaptive Behaviour Scale (Sparrow et al. 1984) or specialist measures of mental health for intellectual disability and autism such as the Psychiatric Assessment Schedule for Adults with Developmental Disabilities (Moss 1998). Such testing can only be carried out by experienced clinicians and they are time consuming and not conducive to the environments of the CJS (McKinnon & Finch 2018).

Limitations

Only two papers were retrieved during this literature review and the study designs of each were different therefore a comparison between the prevalence rates cannot be made. Both studies revealed weaknesses in their design and a risk of bias therefore the findings should be interpreted with caution.

Conclusion

This literature review has demonstrated that there is a paucity of studies investigating the prevalence and identification of defendants with an intellectual disability in the Courts. The existing studies indicate that prevalence of people with an intellectual disability in the CJS is greater than the prevalence of intellectual disability in the general population and there is consensus amongst researchers that this population is over represented across the CJS. The studies also revealed that there is an increase in psychiatric and physical health comorbidities amongst this population which can complicate their journey through the CJS (Vanny *et al.* 2009; Søndenaa *et al.* 2010; Hellenbach *et al.* 2017). The variations in prevalence can be explained by differences in study design and methods, sampling and recruitment, and choice of diagnostic criteria. It is therefore important that future primary and secondary research studies standardise operational terms to enable true comparison between studies, systematic reviews and evidence syntheses. This could include the standardisation of screening tools for use in the CJS, as is currently missing from the NHS operating manual (NHS England 2014).

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