

A systematic review of the characteristics and needs of older prisoners

Journal:	<i>Journal of Criminal Psychology</i>
Manuscript ID	JCP-06-2020-0023.R1
Manuscript Type:	Research Paper
Keywords:	elderly prisoner, older prisoner, characteristics, ageing prisoners, ageing in prison, prisoners

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MANUSCRIPT DETAILS

TITLE: A systematic review of the characteristics and needs of older prisoners

ABSTRACT:

The older prisoner population is growing faster than the older general population and placing a strain on prisons. Much of the existing literature focusses on the healthcare needs of, or in-prison initiatives for, older prisoners. Typically, these are responsive and lacking an evidence-based understanding of the characteristics and needs of this group. There is a need to review and understand what the existing evidence base concludes about the needs of this population.

This paper presents a systematic review of the existing literature on the needs and characteristics of older people in contact with the criminal justice system. After a thorough search and selection process, 21 papers, from 2002 onwards, were included in the final analysis. The review process was structured through PICO's and reported using PRISMA.

The contradictions within the existing evidence base make it difficult to reach firm conclusions about the needs and characteristics of older prisoners. What is clear from the existing research are the relatively high levels of need. There is also some consensus that where older people commit homicide the victim is likely to be an intimate partner. Overall, there a need for consistent recording and reporting of characteristics and demographics and more systematic study design.

CUST_RESEARCH_LIMITATIONS/IMPLICATIONS_(LIMIT_100_WORDS) :No data available.

CUST_PRACTICAL_IMPLICATIONS_(LIMIT_100_WORDS) :No data available.

CUST_SOCIAL_IMPLICATIONS_(LIMIT_100_WORDS) :No data available.

This paper has highlighted the key findings and limitations in the existing literature. Future research should make use of secondary official data sources to provide a clearer understanding of the characteristics of this group, their routes to prison, their needs, and challenges they present.

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	<i>Study</i>	Baidawi et al., (2011)	Beaufriere, Belmenouar & Chariot (2014)	Block (2013)	Booth (2016)	Centre for Policy on Ageing (2016)	Chua, Cheung, Friedman & Taylor (2018)	Curtice, Parker, Wismaver & Tominson (2003)	Fazel and Grann (2002)	Fazel, Hope, O'Donnell & Jacoby (2002)
<i>Population focus</i>	<i>Female</i>									
	<i>General older population</i>	X (50+)	X (60+)			X (50+)				
	<i>Psychiatric</i>							X (65+)	X (60+)	
	<i>Sex offenders</i>				X (65+)		X (65+)			X (59+)
	<i>Homicide</i>			X (60+)						
<i>Country</i>		<i>Australia</i>	<i>France</i>	<i>USA</i>	<i>Canada</i>	<i>UK</i>	<i>New Zealand</i>	<i>UK</i>	<i>Sweden</i>	<i>UK</i>
<i>Type of paper</i>	<i>Review paper</i>	x			X (Literature Review)	x	X			
	<i>Primary data</i>									X <i>Interviews</i>

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			(Medical Assessments in police custody)	X (Chicago Homicide Dataset)				(Survey data from a forensic psychiatric service)	(Court referrals for Psychiatric assessment)	

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	(FBI data)			(national data on homicide; psychiatric reports; clinical data on those know to have contact with mental health services)	(national data on homicide; psychiatric reports; clinical data on those know to have contact with mental health services)	(Nation wide register; forensic psychiatric examination; including Psychopathy checklist)	(legal, criminological and media databases to identify cases of homicide committed by people in New South Wales - but analysis of Supreme and district court files of offenders)		Chicargo homicide dataset	

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Journal of Criminal Psychology

A systematic review of the characteristics and needs of older prisoners

Abstract

Purpose

The older prisoner population is growing faster than the older general population and placing a strain on prisons. Much of the existing literature focusses on the healthcare needs of, or in-prison initiatives for, older prisoners. Typically, these are responsive and lacking an evidence-based understanding of the characteristics and needs of this group. There is a need to review and understand what the existing evidence base concludes about the needs of this population.

Design/methodology/approach

This paper presents a systematic review of the existing literature on the needs and characteristics of older people in contact with the criminal justice system. After a thorough search and selection process, 21 papers, from 2002 onwards, were included in the final analysis. The review process was structured through PICOs and reported using PRISMA.

Findings

The contradictions within the existing evidence base make it difficult to reach firm conclusions about the needs and characteristics of older prisoners. What is clear from the existing research are the relatively high levels of need. There is also some consensus that where older people commit homicide the victim is likely to be an intimate partner. Overall, there a need for consistent recording and reporting of characteristics and demographics and more systematic study design.

Originality/value

This paper has highlighted the key findings and limitations in the existing literature. Future research should make use of secondary official data sources to provide a clearer understanding of the characteristics of this group, their routes to prison, their needs, and challenges they present.

Keywords

Elderly Prisoner; Older Prisoner; Characteristics; Older Offender

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

1.0 Introduction

1.1 *The ageing prison population: an international issue*

Across the world, the prison population is ageing. In the United States, for example, the number of prisoners over age 55 increased by 181% between 2000 and 2010 (Bureau of Justice Statistics 1990-2010). This is compared to an increase in the overall US prison population of 17% during the same time period (Williams, Goodwin, Baillargeon, Ahalt & Walter, 2012). The most recent data show that 19% of the current US prison population are 50 years and over (Federal Bureau of Prisons, 2019). The same pattern appears to be emerging in the Asia Pacific region: for example, the Philippines saw the older prisoner group increase from 28% to 43% of the prison population between 2002 and 2014 (Bureau of Corrections & Philippine Statistics Authority, 2015). Baidawi et al. (2011) highlight that in Australia the older prisoner population growth has been much greater than the general older population growth, a pattern mirrored in many other countries. In 2009, Japan had one of the highest proportions of older people in prison (Naikakufu, 2009; Ishihara & Kempf-Leonard, 2009) and in 2016 people over 50 years contributed 35% of new male prisoners and 39% of new female prisoners (Ministry of Justice, Japan, 2016). In England and Wales, the number of prisoners aged fifty and over increased by 200% in the decade to 2018 and those age 40-49 increased by around 75% (Ministry of Justice, UK, 2018). In comparison, over the same time period, the number of prisoners in England and Wales age 21-29 decreased, while those age 30-39 remained roughly the same (Ministry of Justice, UK, 2018).

The definition of 'older', when referring to individuals in the criminal justice system, is inconsistent in the research literature. However, increasingly researchers are considering individuals as young as fifty as 'older' in criminal justice settings (e.g. Gal, 2003; Aday & Krabill, 2013; Wilkinson & Caulfield, 2017). Research examining the prison population notes the accelerated ageing process and high levels of cognitive decline, compared to the general population (Stevens et al., 2018; Davis, Maclagan & Shenk, 2016) and the rise in older prisoners is problematic for a number of reasons. An increase in this group raises questions about the appropriateness and effectiveness of current prison regimes (Baidawi et al., 2011; Trotter & Baidawi, 2015), which are typically designed to be suitable for younger adults. Wilkinson and Caulfield (2017) note that, in prisons in England and Wales, there is often a lack of meaningful activity suitable for older prisoners. This could contribute to the onset of cognitive decline, with which can come increased levels of violence (Davis, Maclagan & Shenk, 2016). Concerns have also been raised about the prevalence of mental and physical health problems in older prisoners (Lemieux et al., 2002), and the resource implications of supporting these needs (Canada et al., 2019; O'Hara et al., 2016).

1.2 *The characteristics and needs of older prisoners*

Some research has sought to explore the characteristics of older prisoners. Lemieux et al (2002) presented trends from US data, noting that older prisoners tended to be unmarried, white, male, employed prior to incarceration, but never graduated from high school. Older prisoners were either career criminals (prison recidivists), old offenders (first incarcerated age 55 or older), first offenders (first incarcerated before the age of 55), or 'old-timers' (growing old in prison) – these categories were first highlighted by Goetting (1984). While it has been argued that the older population in prison can be vulnerable and subject to victimisation (Baidawi, Trotter & Flynn, 2016, Wilkinson & Caulfield, 2017), Lemieux et al (2002) found evidence to support that older people were likely to be arrested for aggravated assault, larceny theft, sex offences, and homicide, challenging assumptions about vulnerability. Recent research supports this, with violent crimes in the older population increasing in prevalence in the UK (The Prison Reform Trust, 2018). There is evidence that older people are more likely than younger people to be arrested for alcohol and drug-related matters (Putkonen et al., 2010; Peterson, 1998; Wong, Lumsden, Fenton and Fenwick, 1995) and crimes against the person (Feldmeyer & Steffensmeier, 2007). In England and Wales, older males in prison are more likely to be serving a sentence for offences that are sexual in nature (45% of all older men in prison) and/or involve violence against the person (23% of all older men in prison) than any other offence type (Prison Reform Trust, 2019).

As noted above, with the increase in older prisoners comes an increase in the prevalence of mental and physical health issues. Commonly reported illnesses issues are psychiatric, cardiovascular, musculoskeletal and respiratory (Prison Reform Trust, 2008; Howse, 2011). Older offenders typically have a high prevalence of chronic health conditions (Merten, Bishop & Williams, 2012; Fazel, et al., 2002) including 9% with mobility issues reported by Fazel, et al. (2002). In the United Kingdom, a Department of Health survey (1999-2000) highlighted that 85% of prisoners aged 60 and over had one or more major illnesses reported in their medical records, while 83% reported at least one chronic illness or disability. Mental health issues are thought to affect half of this population with many individuals experiencing depression arising as a result of imprisonment (Merten, Bishop & Williams, 2012). Despite these figures, mental health issues are often overlooked by those in contact with the older population (Kingston, Mesurier, Yorston, Wardle & Heath, 2011).

Much of the literature has focused on in-prison initiatives for older prisoners, which are typically responsive rather than systematically planned and thoroughly grounded in an evidence-based understanding of the characteristics and needs of this group (Caulfield & Wilkinson, 2017). The

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3 international rise in the older prison population and the challenges posed by this suggests a need to
4 thoroughly review what the research literature to date has said about the needs and characteristics
5 of this group. A better and more coordinated understanding of older prisoners could: a) guide the
6 development of regimes that are less reactive and support the specific needs of older offenders,
7 including the need for meaningful activities while in prison (Hayes, Burns, Turnbull, and Shaw, 2013;
8 NACRO, 2009; Wilkinson & Caulfield, 2017); b) allow for fuller consideration of the risk profile of this
9 group; and c) provide evidence to support the development of appropriate assessment and
10 treatment.
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18 The aim of this paper is to systematically search the literature to select and review all existing and
19 relevant studies that explore the needs and characteristics of older prisoners (using 50 years and
20 over to be inclusive of the variety of definitions found in the literature), excluding their in-prison
21 programme experiences.
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26 **Research Question**

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28 What are the characteristics and needs of older prisoners?
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32 **2.0 Method**

33 *2.1 Search Strategy*

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35 Databases (see appendix A) were searched using the search terms and strings outlined in appendix
36 B. A total of **3888** papers were imported into Mendeley from the database searches. The research
37 team manually screened the titles and abstracts of the imported papers against the basic search
38 criteria, reducing the total relevant papers to **630**. Duplicates were automatically removed by
39 Mendeley using paper title, author(s), and year order, leaving a total of **608** papers. The research
40 team manually searched and removed further duplicates by author, leaving **594** papers. Twelve of
41 these were book reviews and two were tender documents, therefore they were also removed. The
42 research team removed **146** papers due to publication date being before 2001 as - based on Public
43 Health England statistics (Munday, 2017), US data (Gross, 2007), and reporting on global prison
44 trends (Allen, 2015) - 2002 is when the significant rise in older offenders began. This left **433** papers.
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55 *2.2 Selection Criteria*

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57 The inclusion and exclusion criteria (see below) were discussed in relation to the research aim, and
58 the research team looked through a sample of studies together as an early moderation exercise to
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check the application of inclusion and exclusion criteria before performing the exercise. Using Mendeley, two researchers applied the inclusion and exclusion criteria by marking the remaining **433**, indicating the papers that focused on the general needs and characteristics of the population and removal of papers that focused on health and social care/ in prison treatment or intervention programmes. Papers that focussed solely on treatment or interventions were excluded as the current systematic review focuses on needs and characteristics rather than treatment programmes and their effectiveness. However, papers containing substantial information about prison or forensic assessments did remain (e.g. Fazel & Grann, 2002) as these papers could contain insight information regarding the characteristics of older prisoners. The researchers assessed half of the remaining papers each and moderated each other's reviews. A sample of 20 papers, ten from each researcher, were reviewed in the early moderation process. The paper by Loeb et al. (2011) is an example of a paper that had some mention of characteristics but focussed primarily on in-prison health care management factors and therefore was excluded.

After the sifting exercise **54** papers remained for full text review. After full text review, and the application of the inclusion and exclusion criteria, **30** papers remained, but a further nine were removed upon discussion due to the focus and nature of the papers. One of these two papers was a short commentary review and the other described a new model of working in Japan. See PRISMA diagram (appendix C) for more information about the removed and remaining papers.

2.3 Inclusion and Exclusion Criteria

<u>Include</u>	<u>Exclude</u>
Literature reviews	Non-English language
Papers in English language	Book reviews
Demographic information on the older offending population ¹	Introductory topic overviews
Characteristics and needs of the older offending population ²	Health and social care responses/treatment
Studies with assessment data	Papers published before 2002
	Papers capturing solely in-prison experiences
	Papers presenting solely reasons for the rise

¹ Older offending generally, as opposed to only older prisoners. The research team identified that research on needs and characteristics has not only looked at prison groups, and so excluding studies focused on arrest data, for example, may exclude important learning

² In this systematic review paper we use the terms needs and characteristics in a broad sense to include information on health (including mental health), historical information presented about older prisoner's lives, criminogenic needs, current offence type, offending history background. The inclusion criteria referring to needs and characteristics were purposely kept broad to reduce the risk of useful information being omitted from the search results.

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10 *2.4 Data extraction and analysis*

11 The remaining **21** papers were analysed and synthesised drawing on an approach similar to that
12 proposed by Whittemore and Knafel (2005) of data reduction, data display, data comparison, and
13 verification of conclusions. This approach was appropriate given the ethos of a review method that is
14 inclusive of diverse study methodologies (e.g. interviews, focus group, survey data with quantitative
15 data). This procedure allowed for the process of identifying patterns, which were then grouped
16 together to form the overarching themes.
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22 **3.0 Results**

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24 Table 1.0 shows that of the 21 papers included in this review, seven were review papers, four were
25 primary empirical studies, and 10 papers presented analysis of existing data sets. Table 1.0 presents
26 information about types of papers and samples included (e.g. country of origin). Table 1.1 presents a
27 summary of the key information and findings from each paper relevant to the research question:
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[Insert Table 1.0 outline of papers included]

Table 1.1 *Summary of key findings from the studies included in this review*

Reference	Participants/population size	Key findings
Baidawi, Turner, Trotter, Browning, Collier, Connor & Sheehan (2011)	<ul style="list-style-type: none"> Review paper / position paper Older people (50+) 	<ul style="list-style-type: none"> Makes a case that defining the 'older prisoner' is essential in order to do comparative research and a lack of clarity can impede a firm evidence base being formed around related issues, for example, offence types, recidivism rates, health concerns and prison management programs. It makes a case for further complexity of minority groups within the older population (e.g. females and indigenous in the AUS population).
Beaufrère, Belmenouar & Chariot (2014)	<ul style="list-style-type: none"> Sample of 180 (1% of total arrest records 15,481) Older people in police custody(60+) 92% male and 8% female Arrest at age 60+ but no distinction between career criminals/old offenders 	<ul style="list-style-type: none"> The proportion of detainees arrested twice or more during the studied year was smaller in detainees over 60 than in those under 60. The suspected crimes included physical assaults (51 of 157, 32%), drunk driving (38, 24%), threats (15, 10%), driving without a license (12,8%), thefts or robberies (8, 5%), sexual assaults (7, 4%), fraud (6, 4%), damage to private property (6, 4%), carrying weapons (6, 4%), traffic accidents (5, 3%), and breach of legislation on foreigners (4, 3%). Among cases of physical assaults, 12 of 51 (24%) were related to domestic violence. In 23 of 180 cases (13%), the suspected crime was unknown. A total of 78 of 170 (46%) expressed some complaints during medical examination, which included pain (54 of 170, 32%), psychological symptoms (10 of 170, 6%), fatigue (9 of 170, 5%), breathing difficulties (4 of 170, 2%), and hunger (3 of 170, 2%).
Block (2013)	<ul style="list-style-type: none"> Sample of 476 (1.7% of 27,561 cases). 	<p>Reviews data from Chicago Homicide Dataset, highlighting the following trends in the data:</p> <ul style="list-style-type: none"> Older offenders were more likely than younger adult offenders to have killed an intimate partner.

	<ul style="list-style-type: none"> • Older homicide perpetrators (60+) 54 females and 422 males • Arrest at age 60+ but no distinction in analysis between career criminals/old offenders 	<ul style="list-style-type: none"> • Homicide offending by older people is rare (1.7%) of 27,561 sample • Top 10 victim relationships after intimate partner: acquaintance (21.9%); friend (16.6%); stranger (12.1%); son (6.5%); neighbour (4.4%); sexual rival (3.6%); roommate (3%); son-in-law (2.7%); customer (2.7%); landlord (2.4%). Compared to male offenders age 25 to 59, victims of older men were more likely to be a son (6.5% and 0.9%), customer (2.7% and 0.5%), or roommate (3.0% and 0.8%) and less likely to be a stranger (12.1% and 17.4%) or a drug dealer (0.3% and 3.4%). • Aside from intimate partner, the top ten victim relationships of the 26 remaining older female offenders were friend (19.2%), acquaintance (11.5%), neighbour (11.5%), neighbour in an apartment building (7.7%), stranger (7.7%), and cousin, son-in-law, daughter-in-law, child being watched, roommate, patient, tenant, landlady, and business partner (each 3.8%). Compared to women offenders age 25 to 59, victims of older women were more likely to be a neighbour (11.5% and 4.4%) or a neighbour in an apartment building (7.7% and 1.7%), and less likely to be an acquaintance (11.5% and 24.8%), or son (0% and 6.6%) • Although no distinction made between career criminals/old offenders in the analysis, prior criminal record is cited as a characteristic of the overall group. Older offenders were less likely to have prior violence offence record (31.9%) than men ages 25 – 59 (58.6%). • Older people were significantly more likely than adults (25-59) to commit suicide at the scene • Motives: most frequent for intimate partner was 'general domestic altercation' • Older people are more likely than younger adults to commit homicide alone
Booth (2016)	<ul style="list-style-type: none"> • Review paper • Older people who have sexually offended 	<ul style="list-style-type: none"> • This paper highlights older prisoners needs, health and psychiatric health and issues with sex offender risk assessment. This paper argues that the widely used RNR model focusses on criminogenic needs but does not include mental health needs relevant to an older population (e.g. cognitive decline and hearing impairments). • This paper makes a case for the over measurement of risk in older offenders, due to the lack of

		<p>acknowledgement of the relationship between age and testosterone decline, in relation to the relationship between testosterone and sexual drive.</p> <ul style="list-style-type: none"> Notes that individuals experience issues and difficulties solving interpersonal situations; 20% referral rate for dementia in the older population; undetected and prevalence of psychiatric disorder and cognitive impairment; severe mental illness, of whom 57 % had depression, 25 % had schizophrenia, and 18 % had bipolar illness.
Centre for Policy on Ageing (2016)	<ul style="list-style-type: none"> Older prisoners – general review / position paper Highlights trends based on 2016 prison data of 12,700 older people in prison (England and Wales) Older people (50+) Male sample 	<ul style="list-style-type: none"> Notes that sexual offences and violence against the person are higher in 50+ male offenders than younger offenders. Suggests that special needs of older prisoners include: social exclusion /segregation; medication; release planning and end of life care provision.
Chua, Cheung, Friedman & Taylor (2018)	<ul style="list-style-type: none"> Systematic review Older people (65+) First time older individuals who have committed sex offences(recent & historic) The review includes 7 papers (5 case report papers & 2 retrospective research studies) with a total sample of 26 individuals 	<p>The studies included in this review paper were summarised to highlight the characteristics of first-time older sex offenders, noting that:</p> <ul style="list-style-type: none"> First time older sex offender’s victims are often vulnerable (either minors or with intellectual disability). Lack of either screening or reporting with regards to psychological and cognitive assessments of older offenders. In the few studies where cognitive assessments had taken place they were not elaborated on. Physical disorder such as physical disability, chronic respiratory failure, difficulties in verbal communication, ambulation (used a wheelchair), and urinary incontinence were, similarly, reported in few studies. Psychiatric diagnosis was recorded in case reports: diagnosis included dementia, depression, vascular

		<p>dementia, Alzheimer's disease, frontal lobe dysfunction and chronic schizophrenia.</p> <ul style="list-style-type: none"> The review discussed two types of older offenders (1) repeat offenders but not detected until later life (2) late offenders with a higher proportion of neurocognitive disorder. The review highlights a lack of consistent recording and reporting of characteristics and demographics and a need for better designed studies.
Curtice, Parker, Wismayer & Tomison (2003)	<ul style="list-style-type: none"> Based on 11-year survey of referrals to regional forensic psychiatric services Sample of 32 case reviews Older people (65+) 31 males and 1 female 19 were first time offenders 	<ul style="list-style-type: none"> Sexual offending was the most common index offence (56%); violent offences (25%); murder/manslaughter (9%) and attempted arson (3%) of cases. Although no distinction made between career criminals/old offenders in the analysis, prior criminal record is cited as a characteristic of the overall group. The majority (59%) were first time offenders with no previous history. There was no diagnosis of mental disorder in 56% of cases, however, where there was a diagnosis, dementia was the most common (19%); depression (6%); schizophrenia (6%) mild learning disability (3%). This paper found poor use of diagnostic tools and investigations in the assessment process. Alcohol history was noted in 79% of cases, 41% of patients being regular users. This paper suggests that an integrated approach to assessment and management of older forensic populations is required.
Fazel & Grann (2002)	<ul style="list-style-type: none"> Sample of 210 Older people (60+) 16 females and 194 males Forensic psychiatric evaluations No distinction between career criminals/old offenders 	<ul style="list-style-type: none"> There appear to be important differences in psychiatric morbidity between older offenders and younger offenders who come into contact with forensic psychiatric services. Established that 7% had a diagnosis of dementia; 32% psychotic illness; 8% depressive or anxiety disorder; 15 % substance abuse or dependence; 20% personality disorder. Older offenders were significantly less likely than younger offenders to be diagnosed with schizophrenia or personality disorder and more likely dementia or affective psychosis.
Fazel, Hope, O'Donnell &	<ul style="list-style-type: none"> Sample of 203 (101 individuals who committed sex offences and 	<ul style="list-style-type: none"> Found 6% of older individuals who committed sex offenses had a psychotic illness; 7% major depressive episode; 33% personality disorder; 1% dementia. These figures did not significantly differ

<p>Jacoby (2002)</p>	<p>102 individuals who committed non sex offences)</p> <ul style="list-style-type: none"> • Older people (59+) • Male sample • No distinction in analysis between career criminals/old offenders/'old-timers' 	<p>from older non-sex offenders.</p> <ul style="list-style-type: none"> • Differences occurred when considering personality traits – sex offenders had more schizoid, obsessive-compulsive and avoidant traits, and fewer antisocial traits compared with non-sex offenders. • Although no distinction was made between career criminals/old offenders/'old-timers' in the analysis, median time spent in prison was reviewed and not significantly different for those who had committed sex offences compared with those who had not committed sex offences.
<p>Fazel, O'Donnell, Hope, Gulati & Jacoby (2007)</p>	<ul style="list-style-type: none"> • Sample of 100 prisoners • Older people (59+) • Male sample • Sex and non-sex offence comparison • No distinction in analysis between career criminals/old offenders/'old-timers' 	<ul style="list-style-type: none"> • This paper found no evidence to support that older sex offender's frontal lobes differ from older non-sex offender's frontal lobes. There were no significant differences in test scores for frontal lobe tasks between the two prisoner samples. • There were no significant differences in socio-economic class, although there was a trend for sex offenders to be from lower socio-economic classes. . • Although no distinction made between career criminals/old offenders/'old-timers' in the analysis, median time spent in prison was reviewed and not significantly different for those who had committed sex offences compared with those who did not commit sex offences.
<p>Feldmeyer & Steffensmeier (2007)</p>	<ul style="list-style-type: none"> • Older people (55+) • Federal Bureau of Investigation data – reports from uniformed police officers • Data was taken across different years for comparison (e.g. 1980 = 833 arrests; 1990 = 657 arrests and 2004 = 590 arrests in 55+) 	<ul style="list-style-type: none"> • Looked at trends in older offender crime rates over 25 years noting that there has been very little change in the profile of the older offender, with arrests continuing to be overwhelmingly for minor offences and alcohol-related violations. • Shifts in crime committed by older people have been paralleled by similar trends among the nonelderly, indicating that recent social, economic, and legal changes have had similar impacts on arrest patterns across age groups.

	<ul style="list-style-type: none"> No distinction in analysis between career criminals/old offenders 	
Greene & Gibson (2013)	<ul style="list-style-type: none"> Book chapter - review Older people in the legal system 	<ul style="list-style-type: none"> Reports that older prisoners are far less likely to recidivate compared to the younger population. Some key features for older individuals in prison are the accelerating aging process; low levels of self-care; high psychiatric conditions, social and emotional affects; victimisation; cut off contact to reduce their suffering and negative self-reflection of their lives. Notes that older offenders present issues as diverse as: health care needs; end-of-life care and decisions; social security, medication, and Medicare entitlements; estate planning, wills, trusts, and probate, cognitive impairment and guardianship, and elder abuse.
Gross (2007)	<ul style="list-style-type: none"> Book chapter - review Older people (55+) in the legal system 	<ul style="list-style-type: none"> Provides a summary of information older offenders in the USA from 1971-2004. During the period 2000- 2004 crime by older people rose. , The 55-64 age group showed an increase in the number of violent, property, and drug crime arrests during 2000-2004. Violent crime rate decreased slightly for those aged 65+, while property and drug crime rates remained relatively stable for this age group.
Hunt <i>et al.</i> (2010)	<ul style="list-style-type: none"> Sample of 365 Older homicide perpetrators (311 were 45-64 and 54 were 65+) 90% were male and 10% were female 8-year period (1997-2004) Data from the National Confidential Inquiry into Homicide by people with Mental Illness 	<p>Highlights some key factors and characteristics of older perpetrators of homicide, such as:</p> <ul style="list-style-type: none"> Perpetrators aged 65 and over were most likely to use strangulation/suffocation and the victim was more often a female and a family member or spouse. Older perpetrators had high rates of affective disorder and were more likely to be mentally ill at the time of the offence. Of the 54 older perpetrators who killed a family member or spouse, seven (13%) were considered 'mercy killings'. Although no distinction made between career criminals/old offenders in the overall analysis, 6/54 of the 65+ group and 92/311 of the 45-64 group had a previous conviction for a violent offence.

	<p>(Appleby et al., 1999)</p> <ul style="list-style-type: none"> No distinction in analysis between career criminals/old offenders 	
Overshott <i>et al.</i> (2012)	<ul style="list-style-type: none"> Sample of older prisoners (60+) 91% male (43) and 9% female (4) Data from the National Confidential Inquiry into Homicide by people with Mental Illness (Appleby et al., 1999) No distinction between career criminals/old offenders 	<ul style="list-style-type: none"> 2662 perpetrators convicted of homicide were reported to the Inquiry. 47 (2%) of the perpetrators were aged 60 years or older; 22 of the 47 were 65 years or older. Homicide incidents perpetrated by older people typically involved a man killing his partner in an impulsive manner. The most common method was by using a sharp instrument (34%), followed by the use of a blunt instrument (26%). The use of firearms was rare (11%). Perpetrators aged 65 years and older were significantly more likely to kill a current or former spouse/partner and less likely to kill an acquaintance. Forty-four per cent of perpetrators over 65 years old suffered from depression at the time of the offence. Rates of schizophrenia and alcohol dependence were low.
Putkonen, Weizmann-Henelius, Repo-Tiihonen, Lindberg, Saarela, Eronen & Häkkänen-Nyholm (2010)	<ul style="list-style-type: none"> Sample of 25 Older homicide perpetrators (60+) Three females and 22 males Analysis of large national dataset Explores differences between career criminals/old offenders 	<p>Presents data on older homicide perpetrators who were in a forensic psychiatric examination in Finland 1995–2004 and their gender-matched comparison group of younger homicide offenders. The study found that:</p> <ul style="list-style-type: none"> Offenders 60 years or older were diagnosed less often than the younger ones with drug dependence and personality disorders and more often with dementia and physical illnesses. The mean Psychopathy Checklist—Revised total scores as well as factor and facet scores were lower in the 60 or older age group. The 60 or older age group had significantly lower scores than younger perpetrators on eight individual items of social deviance. The interpersonal/affective factor 1 scores did not differ. The older offenders with previous criminal offending differed from those without in two ways: they had higher rates of alcohol abuse/dependence (75% vs. 31%) and were diagnosed more often with a personality disorder (67% vs. 23%).

<p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16</p> <p>Reutens, Nielsen & Large (2015)</p>	<ul style="list-style-type: none"> • Sample of 87 cases • Older homicide perpetrators(55+) • 57 males and 30 females • Secondary data analysis of database searches • No distinction in analysis between career criminals/old offenders 	<p>Presents a systematic search of legal, criminological and media databases for cases of homicide committed by people aged 55 and over, during the 18 years from 1993 to 2010. Eighty-seven cases were identified through databases. Legal documents were obtained for 70 offenders (about 5% of homicides committed in NSW in the period of the study).</p> <ul style="list-style-type: none"> • The proportions of male offenders and rates of firearm use were similar to other age groups. Twelve of the 14 homicides using guns occurred outside the metropolitan area. • Older offenders were more likely than younger perpetrators to have cognitive impairment or psychotic illness. • Victims were more likely to be female and in a domestic relationship with the offender.
<p>17 18 19 20 21 22 23 24 25 26 27</p> <p>Rodriguez, Boyce & Hodges (2017)</p>	<ul style="list-style-type: none"> • Sample of 100 (32 first time sex offenders; 36 historic sex offenders; 32 non sexual offenders) • Older people (50+) • Male sample • Empirical study 	<p>Presents the findings from a battery of neuropsychological measures administered to 100 participants (32 first time sex offenders; 36 historic sex offenders; 32 non sexual offenders).</p> <ul style="list-style-type: none"> • Both FTSOs and HSOs showed significant impairment on tests of executive function (including verbal fluency, trail-making, and the Hayling test of response inhibition) as well as on tests of verbal and verbal memory compared to NSOs; • There was no difference between the two sex offender groups.
<p>28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46</p> <p>Stanback & King-Kallimanis (2011)</p>	<ul style="list-style-type: none"> • Sample of 972 • Older homicide perpetrators (50+) • Male sample • Secondary data analysis of Chicago Homicide Dataset • No distinction in analysis between career criminals/old offenders 	<p>Presents analysis of the Chicago Homicide Dataset (1965-1995) and investigates covariates associated with four categories of homicide committed by older offenders: intimate, family, acquaintance, and unrelated victims. The findings reveal that:</p> <ul style="list-style-type: none"> • in intimate and family comparisons, women were at a significantly higher risk of victimisation. • Crimes that occurred in residences were significantly associated with all three homicides groups compared with unrelated homicides. • The use of alcohol was significant in crimes where an acquaintance was the victim.

Williams & Rikard (2005)	<ul style="list-style-type: none"> • Sample of 51 departments of corrections • Older women (45+) • No distinction in analysis between career criminals/old offenders/'old-timers' 	<p>Explores policies and programs for older female prisoners. Interviews were conducted with the Federal Bureau of Prisons and state Department of Corrections (N = 40/51) about their policies and programs for older female prisoners.</p> <ul style="list-style-type: none"> • While 23 States provided care for ageing male prisoners, only two reported providing provision for older female prisoners. • The discussion highlights that female prisoners tend to have greater mental health needs and it is important to highlight the gendered needs of older prisoners. • As this paper focuses on programs and policies it is now outdated.
Yorston (2010)	<ul style="list-style-type: none"> • Older prisoners • Review paper 	<p>Primarily focuses on the characteristics of older prisoners. The paper highlights that:</p> <ul style="list-style-type: none"> • the types of offences being committed has remained stable • there is an over-representation of sexual offences against children • there are higher levels of psychotic and mental disorders in older homicide offenders • there is a lack of evidence around some types of crime (e.g. arson and acquisitive offending) • Alcohol is becoming recognised as a problem. • The paper also mentions that there is a lack of research about delirium and personality disorders, some research about dementia. • The review suggests older people may make greater use of firearms (findings from US studies) and that there are lower arrest and conviction rates for older people.

4.0 Summary of results and concluding discussion

The population focus of the papers was as follows: General older prisoners, seven papers; Female older prisoners, one paper; Psychiatric evaluated older prisoners, two papers; Older sex offenders, five papers; Older homicide offenders, six papers (see table 1.0 for the breakdown). Thematic summaries of these papers are presented below, under these headings.

4.1 General

Four of the seven papers considered within this category were review papers. The papers that presented new research findings included data outlining the types of offences committed by this group. Beaufrère *et al.* (2014) found physical assaults were the main suspected crime in their sample of 180 older suspects in France. The Centre for Policy on Ageing (2016) noted that violent crimes remained consistent across all age groups for male offenders in the UK (under 25; 25-49; 50-59; 60+) while the proportion of sexual offences were highest in older offenders (13% of 25-49 year olds; 34% of 50-59 year olds; & 59% of 60+). The types of offence committed by female offenders remained relatively stable across age groups (Centre for Policy on Ageing, 2016). Some studies note the relatively stable nature of offending by older people. Feldmeyer and Steffensmeier (2007) for example found very little change in the profile of the older offender, with arrests mainly for minor offences and alcohol-related violations. However, the most recent data in that study is now 15 years old. Similarly, Yorston's (2010) review paper suggests that the types of offences being committed by older people have remained stable. However, contradictions appear in the literature. Gross' (2007) review paper, for example, notes an increase in violent crime among older people. While contradictions appear, both Feldmeyer and Steffensmeier (2007) and Yorston (2010) highlighted the increased recognition of the role of alcohol in offences committed by older people and Yorston (2010) notes the overrepresentation of sexual offences committed by older offenders.

A number of papers included in this review discuss the health needs of this population, including physical health issues as well as psychiatric and psychological health concerns (Beaufrère *et al.*, 2014; Centre for Policy on Ageing, 2016; Greene & Gibson, 2013; Yorston, 2010). The prison environment is designed for young and able-bodied people (Baidawi *et al.*, 2011) and older adults are often not willing or able to participate in correctional, criminal, or probation programmes (Greene and Gibson, 2013). The rise in numbers of older prisoners makes it difficult to ignore the needs of this population. The potential vulnerability and victimisation of older prisoners is also noted in some studies (Centre for Policy on Ageing, 2016; Baidawi *et al.*, 2011). Yorston (2010), however,

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3 highlights that – when considering risk assessment – the ‘potential for causing harm should never be
4 underestimated on the basis of age alone’ (p 695).
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8 The research in this section presents agreement over the existence of physical and mental health
9 needs in the older offender population, but there is a lack of consistency in terms of the reported
10 offending patterns of this group. The various methodologies employed (e.g. some present a
11 snapshot in time, other comparisons over time, others comparisons against other age groups) make
12 comparison between studies difficult. Baidawi *et al* makes the case that defining the ‘older prisoner’
13 is essential in order to do comparative research and a lack of clarity can impede a firm evidence base
14 being formed around related issues, for example, offence types, recidivism rates, health concerns
15 and prison management programs. The data presented in these empirical and review studies is
16 sometimes based on small sample sizes (e.g. Beaufrère *et al.*, 2014), varied in methodology, and
17 typically fails to make a clear distinction between career criminals/old offenders.
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26 4.2 Female

27 Williams and Rikard (2005) conducted the only study found through this systematic review to focus
28 solely on older female prisoners. While their research focused on policies and programs, Williams
29 and Rickard (2005) highlight that the characteristics of older female prisoners may mean they are
30 particularly low risk, but that there is a need to take account of gender-specific needs. For example,
31 women in contact with the criminal justice system have particularly high levels of need around
32 mental health (Caulfield, 2016). Baidawi *et al.* (2014), in their review paper, note the likely
33 complexity of ‘minority’ groups, including women.
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41 Eight papers (Beaufrère *et al.*, 2014); Block, 2013; Curtice *et al.*, 2003; Fazel & Grann, 2002; Hunt *et*
42 *al.*, 2010; Overshott *et al.*, 2012; Putkonen *et al.*, 2010; Reutens *et al.*, 2015) include women and
43 men in their samples, although only Block and Fazel and Grann include any breakdown of findings
44 according to gender. Block, in her homicide study, found that older women and men were most
45 likely to have killed an intimate partner, with friend second and acquaintance third for women (&
46 reversed for men). Fazel and Grann report that older women were less likely than men to be
47 ‘deemed insane’ (p.911), contrary to those younger than 60. They make no further reference to
48 gender in their analysis. Unsurprisingly, given that men make up the majority of those in contact
49 with the criminal justice system, the numbers of women in these studies is small (ranging from 1
50 woman, Curtice *et al.* to 54 women, Block).
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4.3 Psychiatric

Curtice *et al.* (2003) found that of the 32 cases of older offenders referred to a regional psychology service in the UK, sexual offending was the most common offence. Dementia was a common diagnosis in the cases reviewed (19%). In a review of the psychiatric evaluations of 210 older offenders, Fazel and Grann (2002, also UK) found that this group were less likely to be diagnosed with a mental health condition (including schizophrenia and personality disorders) than younger offenders, but more likely than the general offending population to be diagnosed with dementia or affective psychosis. Yorston *et al.*, (2010) notes homicide followed by suicide is more common in older adults than younger homicide perpetrators. These findings suggest important differences in the psychiatric and cognitive needs of older and younger prisoners, which should be investigated further - and if more widely applicable - taken into account when planning provision for older prisoners. However, the limited recent published literature available on the needs of this group means more systematic research is needed in this area.

4.4 Sex Offenders

In his review of research on older sex offenders, Booth (2016: 5) states that 'when faced with an older sexual offender, the index of suspicion for cognitive issues should be high', although he notes that the general risk level presented by this group may be lower than younger sex offenders. Fazel *et al.* (2002) report similarly high levels of mental health problems and neurocognitive disorders among older sex offenders and older non-sex offenders. However, they do note differences in personality traits, with older sex offenders having higher rates of schizoid, obsessive-compulsive, and avoidant traits, and fewer antisocial traits. As part of the same wider study, Fazel *et al.* (2007) administered frontal lobe tests to older sex offenders and older non-sex offenders, finding no significant frontal lobe differences between the two groups. The only notable difference between the groups was the average lower socio-economic status of the sex offender group. The latter sample is likely to be a subset of the former (although this is not explicitly stated in the paper).

Chua *et al.*'s (2018) systematic review of older first time sex offenders reports a range of sexual offence types, some historic and some current/on-going, and a higher incidence of neurocognitive disorders than found in younger offenders. They report a high incidence of victims with mental illness and/or developmental disorders, with most victims being children or older people. However, despite being a systematic review paper, the overall sample considered in the paper is very small (26 individuals). Rodriguez *et al.*'s (2017) sample of first time and historic older sex offenders demonstrated poorer neuropsychological performance than older non-sex offenders did, although

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3 there was no difference between the older first-time and historical offenders. Cognitive deficits may
4 increase the risk of sexual offending due to impaired capacity in self-regulation, planning, judgment,
5 and inhibition. The authors suggest that proportion of elderly adult sex offenders may be harbouring
6 acquired frontal lobe pathology. However, the sample size of 100 in this study limits generalisability.
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8 Fazel et al (2007) suggest that other possible risk factors for sexual offending, such
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10 as psychosocial and criminal history, might be areas for future research.
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15 4.5 Homicide

16 Block (2013) looked at homicide cases, finding that older offenders were more likely than younger
17 offenders to have killed an intimate partner. Reutens *et al.* (2015) also found that the victims of
18 older homicide perpetrators were likely to be female and in a domestic relationship with the
19 offender. Older offenders in Block's sample were less likely than younger offenders to have a history
20 of violence, more likely to commit the homicide alone, and the most frequent motive was noted as
21 'general domestic altercation'. Stanback and King-Kallimanis (2011)'s work suggests a need to better
22 understand spousal relationships, which might be one important way to identify households at risk
23 of violence (for example, stresses of late life, caregiver responsibilities). Research by Hunt *et al.*
24 (2010) and Overshot *et al.* (2012) add support to this, finding that homicide victims of older
25 perpetrators are likely to be a female family member or spouse. Both studies also found high rates
26 of perpetrator mental illness at the time of the offence, particularly depression. In Reutens *et al.*'s
27 study older offenders were more likely than younger perpetrators to have cognitive impairment or
28 psychotic illness.
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40 Hunt *et al.* (2010) suggest there is a need for improved recognition and treatment of mental illness
41 in older people, and posit that preventing homicide among older people might be best achieved
42 through more specialised GP training to improve recognition and treatment of depression. The
43 existing research, however, underlines the complexities with Overshot *et al.* (2012) finding lower
44 rates of schizophrenia and alcohol dependence than seen in younger homicide perpetrators.
45 Putkonen *et al.* (2010) reporting lower levels of drug dependence and personality disorders, and
46 lower scores of the Psychopathy Checklist, than younger perpetrators (data on older homicide
47 perpetrators in forensic psychiatric examination). However, Putkonen *et al.* found higher rates of
48 dementia and physical illness.
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55 4.6 Summary

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3 The aim of this paper was to systematically search the literature to select and review all existing and
4 relevant studies that have explored the needs and characteristics of older prisoners. After a
5 thorough search and selection process 21 papers, from 2002 onwards, were included in the final
6 analysis. These papers came from the United Kingdom, Australia, France, the USA, Canada, New
7 Zealand, Sweden, Japan, and Finland.
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13 The contradictions within the existing evidence base make it difficult to reach firm conclusions about
14 the needs and characteristics of older offenders. For example, some papers present older offending
15 patterns as relatively stable over time while others suggest there have been increases in certain
16 types of crime committed by older people (e.g. violent crime). There is, however, some consensus
17 regarding older people who have committed certain types of offences. For example, where older
18 people commit homicide the victim is likely to be an intimate partner.
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25 What is clearer from the existing research are the relatively high levels of need in this group.
26 However, inconsistencies in the existing research again underline the complexities of reaching firm
27 conclusions, with some agreement about higher incidences of cognitive impairment - particularly in
28 certain sub-groups of older offenders - but differences where mental health is concerned. Where
29 research does exist on needs and characteristics, this primarily relates to older men and very little is
30 known about older women in contact with the criminal justice system. Given the gendered nature of
31 needs of younger adults in the criminal justice system (Caulfield, 2010) and that there are physical
32 differences in the way men and women age (menopause, for example, is briefly discussed in Public
33 Health England guidance on gender specific guidance for improving health and wellbeing in prisons
34 in England: PHE, Peden *et al.*, 2018), this is an important area for future consideration. How
35 offending patterns and needs relate to risk and risk assessment is a point without any clear
36 consensus.
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47 Any conclusions drawn from the existing literature should be taken with caution. There are a
48 relatively small number of recent papers focused on the needs and characteristics of older people in
49 contact with the criminal justice system, and sample sizes are generally small (overall, and even
50 smaller when broken down into sub-categories of older offenders). Furthermore, when reviewing
51 existing studies it is not possible to compare like for like. There are various methodologies employed
52 with some studies presenting a snapshot in time, others making comparisons over time, and others
53 making comparisons against other age groups, making comparison between studies difficult. In this
54 current systematic review we included older people in contact with the criminal justice system
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3 broadly to avoid missing important learning, but this is a further example of an inability to compare
4 like for like. The existing research also often fails to make clear distinctions between groups of older
5 prisoners, such as whether individuals are career criminals (prison recidivists), old offenders (first
6 incarcerated age 55 or older), first offenders (first incarcerated before the age of 55), or 'old-timers'
7 (growing old in prison) (Goetting, 1984). For example, Block (2013) identifies prior criminal history as
8 one potential characteristic of those perpetrating crime at age 60+, but does not break down her
9 analysis to look at the separate characteristics of old offenders vs. recidivists.
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16 Overall, there is a lack of consistent recording and reporting of characteristics and demographics and
17 - as Chua *et al.* (2018) note in their review of the characteristics of first time older sexual offenders -
18 a need for better designed, more systematic studies. Perhaps even more basic a start-point, Baidawi
19 *et al* (2011) make the case that defining the 'older prisoner' consistently is essential in order to do
20 comparative research.
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25 26 27 4.7 Conclusion

28 The prison population is ageing, and this is an international issue, yet there remains a lack of
29 consistency about how older prisoners are defined and understood. The papers reviewed here
30 suggest that older prisoners have significant needs, but evidence about the prevalence of needs and
31 their relationship to factors such as offence type is mixed. Much of this is because the approach to
32 the existing research has not been consistent.
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38 A better understanding of patterns and precipitators would enable an evidence-based conversation
39 about prevention. If we acknowledge, for example, that the prison environment – or certainly most
40 current, typical prison environments – is likely to increase the speed of cognitive decline, and this
41 may be an issue with some sub-groups of older prisoners, there are important questions here about
42 both need and risk. Many studies also consider prisoners who have grown old in prison alongside
43 those who have entered prison at a late age (for current or historic offences). It would be useful to
44 look at the different factors relevant to these groups. The literature to date has also been almost
45 exclusively focused on the older *male* prison population, while older women have been almost
46 entirely excluded from the literature.
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55 What is clear from this systematic review is that there is a lack of clear understanding about the
56 characteristics of older prisoners as a whole, despite this being an international issue. A wealth of
57 information exists in our criminal justice, correctional, and government systems about prisoners,
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3 their characteristics, their need and risk, their history, and the judicial decisions surrounding their
4 cases. Future research should make use of these data sources to provide a much clearer
5 understanding of this group, their routes to prison, their needs, and the challenges they present.
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7 A better and coordinated understanding of the reasons behind the significant increase in the older
8 population in prison could: a) guide the development of regimes that are less reactive and support
9 the specific needs of older offenders, including the need for meaningful activities while in prison
10 (Hayes, Burns, Turnbull, and Shaw, 2013; NACRO, 2009; Wilkinson & Caulfield, 2017); b) allow for
11 fuller consideration of the risk profile of this group; and c) provide evidence to support the
12 development of appropriate assessment and treatment. Increased understanding of this group and
13 the precipitating factors surrounding their offence may not only provide lessons for better
14 supporting those convicted and reducing their needs and risk, but also may provide lessons for the
15 prevention of such crimes.
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Appendix A *List of databases searched and results*

CINAHL complete	1992-2018	196
Cochran Library	2001-2016	14
ERIC	1967-2018	62
Europe PubMed Central	2014-2018	68
MEDLINE	1948-2018	46
PsycARTICLES	1934-2018	12
PsycINFO	1923-2018	159
SAGE Complete A-Z List	1924-2018	181
ScienceDirect Journals	1995-2018	561
Scopus	2010-2019	380
ProQuest Central		366
Web of Science	1948-2018	78
Social Care online	1996-2016	74
CINAHL Plus with Full Text	Nursing and allied health journals 1992-2018	199
Medline with full text	Medicine and healthcare 1948-2018	306
Psychology and Behavioral Sciences Collection	Emotional and behavioural characteristics. 1971-2018	91
SocINDEX with Full Text	Sociological research 1975-2017	67
Cambridge core	Digitised backfiles of Science, Technology and Medicine journals, and Humanities & Social Sciences journals from Cambridge University Press	1
JSTOR	JSTOR is a digital library of academic journals, books, and primary sources. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations.	9
PubMed	biomedical literature from MEDLINE, life science journals, and online books	34
ProQuest	A broad range of full-text and bibliographic databases hosted by Proquest Included: Dissertations and theses; Scholarly journals; Books; Working papers; Trade journals	463

Zetoc	The British Library's Electronic Table of Contents. Contains details of articles from 20,000 current journals and 16,000 conference proceedings. All subjects covered, from 1993	16
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Journal of Criminal Psychology

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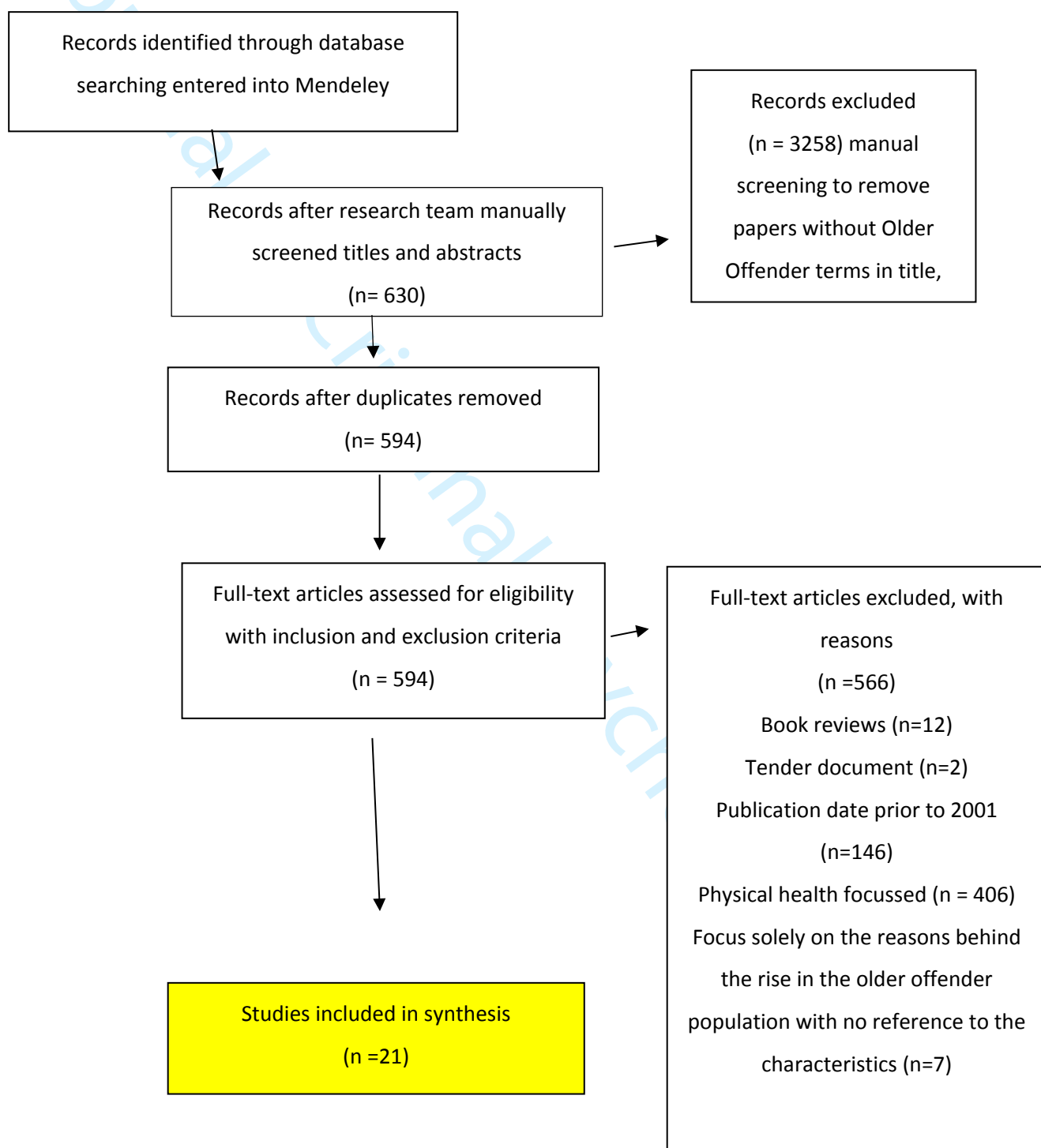
Appendix B Search Strings Used in Literature Searches

	Search Topic	Search Terms^a	Search Field
1	Older Offender	Older offender OR Elderly Offender OR Older prisoner OR Elderly Prisoner OR Aging Prisoners OR Aging Offenders OR Geriatric offender OR Geriatric prisoner OR Prisoner over AGE OR Offender over AGE "Older offender" OR "Elderly Offender" OR "Older prisoner" OR "Elderly Prisoner" OR "Aging Prisoners" OR "Aging Offenders" OR "Geriatric offender" OR "Geriatric prisoner" OR "Prisoner over AGE" OR "Offender over AGE"	All text
2	Health	Health OR Well-being OR Psycholog* OR Psyc*	All text
3	Violence	Violen* OR Aggressive OR Domestic OR intimate partner violence OR Deviance OR Antisocial	All text
4	Needs	Criminogenic Needs OR supportive needs	All text
5	Risk	Risk assessment OR Crime committed OR Offence type (sub-search terms needed??) Or Violence OR Violent offence Or Sexual offence OR First offence OR First timer	All text
6	Offender typology	Life course persistent OR First-time older OR Repeat offender	All text
7	Intervention or cause	Characteristics OR Dementia OR Mental health (under 'causes' rather than needs) OR Mental illness OR Ageing population OR Growing old OR Longer sentences OR Indeterminate sentence OR Historic	All text

Appendix C PRISMA



Amended PRISMA 2009 Flow Diagram



A systematic review of the ~~offending~~ characteristics and needs of older prisoners

Abstract

Purpose

The older prisoner population is growing faster than the older general population and ~~displays high levels of physical and mental health needs,~~ placing a strain on prisons. Much of the ~~existing~~ literature focusses on ~~the~~ healthcare needs ~~of, or, or~~ in-prison initiatives for ~~older prisoners,~~ ~~which~~ are typically, ~~these are~~ responsive ~~rather than evidence-based and systematically planned,~~ and ~~thoroughly grounded in an evidence-based~~ ~~incorporating~~ and lacking an evidence-based understanding of the characteristics and needs of this group. ~~There is a need to review and understand what the existing evidence base concludes about the needs of this population.~~

Design/methodology/approach

This paper presents a systematic review of ~~the existing literature on the needs and characteristics of older older people in contact with the criminal justice system~~ ~~prisoner characteristics.~~ After a ~~thorough search and selection~~ ~~selection process,~~ ~~21~~ ~~Twenty-one~~ papers, from 2002 onwards, were included in the ~~final analysis~~ ~~existing literature from 2002 onwards.~~ The review process was structured through PICOs and reported using PRISMA.

Findings

~~The existing evidence suggests~~ ~~captured some offending characteristics of certain groups of that older prisoners,~~ ~~are such as an~~ ~~the increased~~ ~~more likelihood of~~ ~~to committing crimes against the person,~~ that are physical ~~and~~ sexual in nature when compared to younger prisoners. ~~T,~~ the ~~evidence also suggests that their~~ ~~crimes are more likely to be linked to alcohol misuse and abuse.~~ ~~However, our current findings are limited by sample demographics and methodologies and therefore cannot be assumed to apply to all older prisoners.~~

~~The contradictions within the existing evidence base make it difficult to reach firm conclusions about the needs and characteristics of older prisoners. What is clear from the existing research are the relatively high levels of need. There is also some consensus that where older people commit homicide the victim is likely to be an intimate partner. Overall, there a need for consistent recording and reporting of characteristics and demographics and more systematic study design.~~

Originality/ value

This paper project has highlighted ~~some of the~~ key findings and limitations in the existing literature ~~key factors and findings from the existing published evidence on older prisoners~~. Future research should make use of secondary official data sources to provide a clearer understanding of the characteristics of this group, their routes to prison, their needs, and challenges they present.

Keywords

Elderly Prisoner; Older Prisoner; Characteristics; Older Offender

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

1.0 Introduction

1.1 *The ageing prison population: an international issue*

Across the world, the prison population is ageing. In the United States, for example, the number of prisoners over age 55 increased by 181% between 2000 and 2010 (Bureau of Justice Statistics 1990-2010). This is compared to an increase in the overall US prison population of 17% during the same time period (Williams, Goodwin, Baillargeon, Ahalt & Walter, 2012). The most recent 2019 data, ~~from 2019~~, show thats 19.2% of the current US prison population are 50 years and over (Federal Bureau of Prisons, 2019). The same pattern appears to be emerging in the Asia Pacific region: for example, the Philippines saw the older prisoner group increase from 287.89% to 432.88% of the prison population between 2002 and 2014 (Bureau of Corrections & Philippine Statistics Authority, 2015). Baidawi et al. (2011) highlight that in Australia the older prisoner population growth has been much greater than the general older population growth, a pattern mirrored in many other countries. -In 2009, Japan had one of the highest proportions of older people in prison (Naikakufu, 2009; Ishihara & Kempf-Leonard, 2009) and in 2016 people over 50 years contributed 35.3% of new male prisoners and 38.9% of new female prisoners (Ministry of Justice, Japan, 2016). In England and Wales, the number of prisoners aged fifty and over increased by 200% in the decade to 2018 and those age 40-49 increased by around 75% (Ministry of Justice, UK, 2018). -In comparison, over the same time period, the number of prisoners in England and Wales age 21-29 decreased, while those age 30-39 remained roughly the same (Ministry of Justice, UK, 2018). The definition of 'older', when referring to individuals in the criminal justice system, is inconsistent in the research literature. -However, increasingly researchers are considering individuals as young as fifty as 'older' in criminal justice settings (e.g. Gal, 2003; Aday & Krabill, 2013; Wilkinson &

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3 Caulfield, 2017). Research examining the prison population notes the accelerated ageing process and
4 high levels of cognitive decline, compared to the general population (Stevens et al., 2018; Davis,
5 Maclagan & Shenk, 2016) and the rise in older prisoners is problematic for a number of reasons. -An
6 increase in this group raises questions about the appropriateness and effectiveness of current prison
7 regimes (Baidawi et al., 2011; Trotter & Baidawi, 2015), which are typically designed to be suitable
8 for younger adults. Wilkinson and Caulfield (2017) note that, in prisons in England and Wales, there
9 is often a lack of meaningful activity suitable for older prisoners. This could contribute to the onset
10 of cognitive decline, with which can come increased levels of violence (Davis, Maclagan & Shenk,
11 2016). Concerns have also been raised about the prevalence of mental and physical health problems
12 in older prisoners (Lemieux et al., 2002), and the resource implications of supporting these needs
13 (Canada et al., 2019; O'hara et al., 2016).

23 1.2 The characteristics and needs of older prisoners

24 Some research has sought to explore the characteristics of older prisoners. Lemieux et al (2002)
25 presented trends from US data, noting that older prisoners tended to be unmarried, white, male,
26 employed prior to incarceration, but never graduated from high school. Older prisoners were either
27 career criminals (prison recidivists), old offenders (first incarceration ~~occurred at~~ age 55 or older),
28 first offenders (first incarceration before the age of 55), or 'old-timers' (growing old in prison) –
29 these categories were first highlighted by Goetting (1984). While it has been argued that the older
30 population in prison can be vulnerable and subject to victimisation (Baidawi, Trotter & Flynn, 2016,
31 Wilkinson & Caulfield, 2017), Lemieux et al (2002) found evidence to support that older people were
32 likely to be arrested for aggravated assault, larceny theft, sex offences, and homicide, challenging
33 assumptions about vulnerability. Recent research supports this, with violent crimes in the older
34 population increasing in prevalence in the UK (The Prison Reform Trust, 2018). There is evidence
35 that older people are more likely than younger people to be arrested for alcohol and drug-related
36 matters (Carabellese et al., 2012; Putkonen et al., 2010; Peterson, 1998; Wong, Lumsden, Fenton
37 and Fenwick, 1995) and crimes against the person (Feldmeyer & Steffensmeier, 2007). In England
38 and Wales, ~~the majority of~~ older males in prison have committed are more likely to be serving a
39 sentence for offences that are sexual in nature (45% of all older men in prison) and/or involve
40 violence against the person (23% of all older men in prison) than any other offence type (Prison
41 Reform Trust, 2019), leading to 80% of individuals serving a sentence of four or more years
42 (Wilkinson & Caulfield, 2017; Bromley Briefing, 2017).

43 As noted above, with the increase in older prisoners comes an increase in the prevalence of mental
44 and physical health issues. Commonly reported illnesses issues are psychiatric, cardiovascular,
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3 musculoskeletal and respiratory (Prison Reform Trust, 2008; Howse, 2011). Older offenders typically
4 have a high prevalence of chronic health conditions (Merten, Bishop & Williams, 2012; Fazel, et al.,
5 2002) including 9% with mobility issues reported by Fazel, et al. (2002). -In the United Kingdom, a
6 Department of Health survey (1999-2000) highlighted that 85% of prisoners aged 60 and over had
7 one or more major illnesses reported in their medical records, while 83% reported at least one
8 chronic illness or disability. Mental health issues are thought to affect half of this population with
9 many individuals experiencing depression arising as a result of imprisonment (Merten, Bishop &
10 Williams, 2012). Despite these figures, mental health issues are often overlooked by those in contact
11 with the older population (Kingston, Mesurier, Yorston, Wardle & Heath, 2011).

12
13 Much of the literature has focused on in-prison initiatives for older prisoners, which are typically
14 responsive rather than systematically planned and thoroughly grounded in an evidence-based
15 understanding of the characteristics and needs of this group (Caulfield & Wilkinson, 2017). The
16 international rise in the older prison population and the challenges posed by this suggests a need to
17 thoroughly review what the research literature to date has said about the needs and characteristics
18 of this group. A better and more coordinated understanding of older prisoners could: a) guide the
19 development of regimes that are less reactive and support the specific needs of older offenders,
20 including the need for meaningful activities while in prison (Hayes, Burns, Turnbull, and Shaw, 2013;
21 NACRO, 2009; Wilkinson & Caulfield, 2017); b) allow for fuller consideration of the risk profile of this
22 group; and c) provide evidence to support the development of appropriate assessment and
23 treatment.

24
25 The aim of this paper is to systematically search the literature to select and review all existing and
26 relevant studies that explore the ~~offending~~ needs and characteristics of older prisoners (using 50
27 years and over to be inclusive of the variety of definitions found in the literature), excluding their in-
28 prison programme experiences.

29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 **Research Question**

45 What are the ~~offending~~ characteristics and needs of older prisoners?
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49 50 51 52 53 54 55 56 57 58 59 60 **2.0 Method**

2.1 Search Strategy

Databases (see appendix A) were searched using the search terms and strings outlined in appendix B. A total of **3888** papers were imported into Mendeley from the database searches. The research team manually screened the titles and abstracts of the imported papers against the basic search criteria, reducing the total relevant papers to **630**. Duplicates were automatically removed by Mendeley using paper title, author(s), and year order, leaving a total of **608** papers. The research

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3 team manually searched and removed further duplicates by author, leaving **594** papers. Twelve of
4 these were book reviews and two were tender documents, therefore they were also removed. The
5 research team removed **146** papers due to publication date being before 2001 as - based on Public
6 Health England statistics (Munday, 2017), US data (Gross, 2007), and reporting on global prison
7 trends (Allen, 2015) - 2002 is when the significant rise in older offenders began. This left **433** papers.
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10 11 12 13 *2.2 Selection Criteria*

14 The inclusion and exclusion criteria (see below) were discussed in relation to the research aim, and
15 the research team looked through a sample of studies together as an early moderation exercise to
16 check the application of inclusion and exclusion criteria before performing the exercise. Using
17 Mendeley, two researchers applied the inclusion and exclusion criteria by marking the remaining
18 **433**, indicating the papers that focused on the general needs and characteristics of the population
19 and removal of papers that focused on health and social care/ in prison treatment or intervention
20 programmes. ~~The researchers assessed half of the remaining papers each and moderated each
21 other's reviews. A sample of twenty papers, ten from each researcher, were reviewed in the early
22 moderation process. The paper by Loeb et al. (2011) is an example of a paper that had some
23 mention of characteristics but focussed primarily on in-prison health care management factors and
24 therefore was excluded. Papers that focussed solely on prisoner care or treatment/treatment or
25 interventions were excluded as the this current systematic review focuses on needs and
26 characteristics rather than treatment programmes and their effectiveness. However, papers
27 containing substantial information about prison or forensic assessments did remain (e.g. Fazel &
28 Grann, 2002) as these papers could contain insight information regarding the characteristics of older
29 prisoners. The researchers assessed half of the remaining papers each and moderated each other's
30 reviews. A sample of 20 twenty papers, ten from each researcher, were reviewed in the early
31 moderation process. The paper by Loeb et al. (2011) is an example of a paper that had some
32 mention of characteristics but focussed primarily on in-prison health care management factors and
33 therefore was excluded.~~

34 After the sifting exercise **54** papers remained for full text review. After full text review, and the
35 application of the inclusion and exclusion criteria, **30** papers remained, but a further nine were
36 removed upon discussion due to the focus and nature of the papers. One of these two papers was a
37 short commentary review and the other described a new model of working in Japan. See PRISMA
38 diagram (appendix C) for more information about the removed and remaining papers.
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48 49 50 51 52 53 54 55 56 57 58 *2.3 Inclusion and Exclusion Criteria*

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Include

Literature reviews

Papers in English language

Demographic information on the older offending

population¹

Characteristics and needs of the older offending

population²[Studies with assessment data](#)Exclude~~Papers in any other language (non-English~~~~language)~~

Book reviews

Introductory topic overviews

Health and social care responses/treatment

Papers published before 2002

Papers capturing solely in-prison experiences

Papers presenting solely reasons for the rise
in this population

2.4 Data extraction and analysis

The remaining 21 papers were analysed and synthesised drawing on an approach similar to that proposed by Whittemore and Knafl (2005) of data reduction, data display, data comparison, and verification of conclusions. This approach was ~~most suited~~appropriate given the ethos of a review method that is inclusive of ~~combining~~ diverse study methodologies (e.g. interviews, focus group, survey data with quantitative data). ~~This~~ procedure allowed for the process of identifying patterns, which were then grouped together to form the overarching themes.

3.0 Results

Table 1.0 shows that of the 21 papers included in this review, seven were review papers, four were primary empirical studies, and 10 papers presented analysis of existing data sets. Table 1.0 presents~~For more~~ information about types of papers and samples included (e.g. country of origin). Table 1.1 presents: a summary of the key information and findings from each paper relevant to the research question: What are the characteristics and needs of older prisoners?. Six papers were from the United Kingdom (two review papers; one primary data; three secondary data); three papers

¹ Older offending generally, as opposed to only older prisoners. The research team identified that research on needs and characteristics has not only looked at prison groups, and so excluding studies focused on arrest data, for example, may exclude important learning

² In this systematic review paper we use the terms needs and characteristics in a broad sense to include information on health (including mental health), historical information presented about older prisoner's lives, criminogenic needs, current offence type, offending history background. The inclusion criteria referring to needs and characteristics were purposely kept broad to reduce the risk of useful information being omitted from the search results.

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3 were from Australia (one review paper; one primary data; one secondary data); one paper was from
4 France (secondary data); six papers were from the USA (two review papers; one primary data; three
5 secondary data); one paper was from Canada (one review paper); one paper was from New Zealand
6 (review paper); two papers were from Sweden (one primary data; one secondary data); and one
7 paper was from Finland (secondary data).
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Journal of Criminal Psychology

[Insert Table 1.0 outline of papers included]

Table 1.1 Summary of key findings from the studies included in this review

Reference	Participants/ population size	Key findings / argument	Key discussion points
Baidawi, Turner, Trotter, Browning, Collier, Connor & Sheehan (2011)	<ul style="list-style-type: none"> Review paper / position paper Older people (50+) 	<ul style="list-style-type: none"> Makes a case that defining the 'older prisoner' is essential in order to do comparative research and a lack of clarity can impeded a firm evidence based being formed around related issues, for example, offence types, recidivism rates, health concerns and prison management programs. Claims for the rise in the older prison population due to policy and practice; release and resettlement issues; vulnerability and victimisation; suitability of prison regime, nursing home prisons, hospices and special needs units; staffing, services and programs; heightened caution with regards to parole and reduced cases of early release. It makes a case for further complexity of minority groups within the older population (e.g. females and indigenous in the AUS population). 	<p>Highlights the issues of defining older offenders and the rise in older prison populations (AUS based). It makes a case for further complexity of minority groups within the older offender population (e.g. females and indigenous in the AUS population). The paper considered the costs of responding to the health care needs, accommodation and correctional programs involved, suggesting implications to policy makers.</p>
Beaufrère, Belmenouar & Chariot (2014)	<ul style="list-style-type: none"> Assessment of Sample of 180 (1% of total arrest records 15,481) Older people in police custody (60+) arrested in police custody cells. 92% male and 8% female 	<ul style="list-style-type: none"> The proportion of detainees arrested twice or more during the studied year was smaller in detainees over 60 than in those under 60. The suspected crimes included physical assaults (51 of 157, 32%), drunk driving (38, 24%), threats (15, 10%), driving without a license (12,8%), thefts or robberies (8, 5%), sexual assaults (7, 4%), fraud 	<p>Notes the prevalence of arrests in the over 60+, utilising medical records. The paper discusses the implications of health declining with age and therefore the considerations to be made with regards to being 'less fit' for detention.</p>

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	<ul style="list-style-type: none"> • <u>Arrest at age 60+ but no distinction between career criminals/old offenders</u> 	<p>(6, 4%), damage to private property (6, 4%), carrying weapons (6, 4%), traffic accidents (5, 3%), and breach of legislation on foreigners (4, 3%).</p> <ul style="list-style-type: none"> • Among cases of physical assaults, 12 of 51 (24%) were related to domestic violence. In 23 of 180 cases (13%), the suspected crime was unknown. • A total of 78 of 170 (46%) expressed some complaints during medical examination, which included pain (54 of 170, 32%), psychological symptoms (10 of 170, 6%), fatigue (9 of 170, 5%), breathing difficulties (4 of 170, 2%), and hunger (3 of 170, 2%). 	
Block (2013)	<ul style="list-style-type: none"> • <u>Sample of 476 (Analysis of Chicago Homicide Dataset</u> • <u>1.7% of 27,561 cases).</u> • <u>Older homicide perpetrators (60+) Focussed on trends in the Older population People (60+)</u> • <u>54 females and 422 males Homicide against or by older people</u> • <u>Older individuals who have committed Homicide</u> • <u>Arrest at age 60+ but no distinction in analysis between</u> 	<p>Reviews data from Chicago <u>Homicide Dataset</u>, highlighting the following trends in the data:</p> <ul style="list-style-type: none"> • <u>Male</u> older offenders were more likely than younger adult offenders to have killed an intimate partner. • Homicide offending by older people is rare (1.7%) of 27,561 sample. <u>Chicago</u> • Top 10 victim relationships <u>after intimate partner</u>: acquaintance (21.9%); friend (16.6%); stranger (12.1%); son (6.5%); neighbour (4.4%); sexual rival (3.6%); roommate (3%); son-in-law (2.7%); customer (2.7%); landlord (2.4%). Compared to male offenders age 25 to 59, victims of older men were more likely to be a son (6.5% and 0.9%), customer (2.7% and 0.5%), or roommate (3.0% and 0.8%) and less likely to be a stranger (12.1% and 17.4%) or a drug dealer (0.3% and 3.4%). 	<p><u>Discusses the older offender and victim relationship (in intimate partner cases). This paper suggests that older people are less likely to have prior violent offence records, but do have higher suicide rates and are more likely to commit homicide alone.</u></p>

	<p><u>career criminals/old offenders</u></p>	<ul style="list-style-type: none"> • Aside from intimate partner, the top ten victim relationships of the 26 remaining older female offenders were friend (19.2%), acquaintance (11.5%), neighbour (11.5%), neighbour in an apartment building (7.7%), stranger (7.7%), and cousin, son-in-law, daughter-in-law, child being watched, roommate, patient, tenant, landlady, and business partner (each 3.8%). Compared to women offenders age 25 to 59, victims of older women were more likely to be a neighbour (11.5% and 4.4%) or a neighbour in an apartment building (7.7% and 1.7%), and less likely to be an acquaintance (11.5% and 24.8%), or son (0% and 6.6%). • <u>Although no distinction made between career criminals/old offenders in the analysis, prior criminal record is cited as a characteristic of the overall group.</u> Older offenders were less likely to have prior violence offence record (31.9%) than men ages 25 – 59 (58.6%). • Older <u>people-offenders</u> were significantly more likely than adults (25-59) to commit suicide at the scene. • Motives: most frequent for intimate partner was ‘general domestic altercation’ • Older <u>peopleoffenders</u> are <u>significantly</u> more likely <u>than younger adults</u> to commit homicide alone 	
Booth (2016)	<ul style="list-style-type: none"> • Review paper • <u>Older peopleindividuals</u> who have sexually offended 	<ul style="list-style-type: none"> • <u>This paper highlights older prisoners needs, health and psychiatric health and issues with sex offender risk assessment. This paper argues that the widely used RNR model focusses on criminogenic</u> 	<p><u>This paper highlights older prisoners needs, health and psychiatric health and issues with sex-offender risk assessment. This paper</u></p>

		<p><u>needs but does not include mental health needs relevant to an older population (e.g. cognitive decline and hearing impairments).</u></p> <ul style="list-style-type: none"> <u>This paper makes a case for the over measurement of risk in older offenders, due to the lack of acknowledgement of the relationship between age and testosterone decline, in relation to the relationship between testosterone and sexual drive.</u> <u>Notes that individuals experience issues and difficulties solving interpersonal situations; 20% referral rate for dementia in the older population; undetected and prevalence of psychiatric disorder and cognitive impairment; severe mental illness, of whom 57 % had depression, 25 % had schizophrenia, and 18 % had bipolar illness.</u> 	<p><u>argues that the widely used RNR (risk, needs, responsivity) model focusses on criminogenic needs but does not include mental health needs relevant to an older population (e.g. cognitive decline and hearing impairments).</u></p> <p><u>This paper makes a case for the over measurement of risk in older offenders, due to the lack of acknowledgement of the relationship between age and testosterone decline, in relation to the relationship between testosterone and sexual drive.</u></p>
Centre for Policy on Ageing (2016)	<ul style="list-style-type: none"> <u>Older prisoners – general review / position paper</u> <u>Highlights trends based on 2016 prison data of 12,700 older people in prison (England and Wales)</u> <u>Findings based on trends from Sample of 12,700</u> <ul style="list-style-type: none"> <u>Older people (50+)</u> <u>Male sample</u> 	<ul style="list-style-type: none"> <u>Presents demographic data; confirmation of a general growth in the older prison population and n</u>Notes that sexual offences and violence against the person are higher in 50+ male offenders <u>than younger offenders.</u> <u>Suggests that special needs of older prisoners include: social exclusion /segregation; medication; release planning and end of life care provision.</u> 	<p><u>This paper discussed the issues with the prevalence of health care issues and the complexity of prisons meeting the health care needs of older prisoners. This paper suggests that special needs of older prisoners include: social exclusion /segregation; medication; release planning and end of life care provision.</u></p>
Chua, Cheung, Friedman &	<ul style="list-style-type: none"> <u>Systematic review</u> <u>Findings based on collective</u> 	<p>The studies included in this review paper were summarised to highlight the characteristics of first-time older sex offenders. <u>This review</u></p>	<p><u>This review highlighted the lack of consistent reporting of characteristics, demographics and</u></p>

Taylor (2018)	<p><u>Sample of 26 individuals</u></p> <ul style="list-style-type: none"> • <u>Of older people (65+)</u> • <u>First time older individuals who have committed sex offences (recent & historic)</u> • <u>First time offenders and repeat offenders</u> • The review includes 7 papers (5 case report papers & 2 retrospective research studies) <u>with a total sample of 26 individuals</u> 	<p><u>noteings that:</u></p> <ul style="list-style-type: none"> • <u>First time older sex offender's victims are often vulnerable (either minors or with intellectual disability).</u> • <u>Lack of either screening or reporting with regards to psychological and cognitive assessments of older offenders. In the few studies where cognitive assessments had taken place they were not elaborated on.</u> • <u>Physical disorder such as physical disability, chronic respiratory failure, difficulties in verbal communication, ambulation (used a wheelchair), and urinary incontinence were, similarly, reported in few studies.</u> • <u>Psychiatric diagnosis was recorded in case reports: diagnosis included dementia, depression, vascular dementia, Alzheimer's disease, frontal lobe dysfunction and chronic schizophrenia.</u> • <u>The review discussed two types of older offenders (1) repeat offenders but not detected until later life (2) late offenders with a higher proportion of neurocognitive disorder.</u> • <u>The review highlights a lack of consistent recording and reporting of characteristics and demographics and a need for better designed studies.</u> <p>The study notes the lack of either screening or reporting with regards to psychological and cognitive assessments of older offenders. In the few studies where cognitive assessments had taken place they were</p>	<p><u>psychological assessments in the published studies and case reports on older sex offenders. The review suggests a lack of routine cognitive and dementia assessments, either performed or reported, specific to this population. The review highlights a lack of consistent recording and reporting of characteristics and demographics and a need for better designed studies.</u></p>
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		<p>not elaborated on. Physical disorder such as physical disability, chronic respiratory failure, difficulties in verbal communication, ambulation (used a wheelchair), and urinary incontinence were, similarly, reported in few studies. Psychiatric diagnosis was recorded in case reports: diagnosis included dementia, depression, vascular dementia, Alzheimer's disease, frontal lobe dysfunction and chronic schizophrenia.</p>	
<p>Curtice, Parker, Wismayer & Tomison (2003)</p>	<ul style="list-style-type: none"> • Based on 11-year survey of referrals to regional forensic psychiatric services • <u>Sample of 32 case reviews were reviewed.</u> • <u>Older people offenders (65+)</u> • <u>31 males and 1 female</u> • <u>19 were first time offenders</u> • <u>32 cases were reviewed.</u> 	<ul style="list-style-type: none"> • <u>Found 66% of referrals came from solicitors.</u> Sexual offending was the most common <u>index</u> offence (56%); violent offences (25%); murder/manslaughter (9%) and attempted arson (3%) of cases. • <u>Although no distinction made between career criminals/old offenders in the analysis, prior criminal record is cited as a characteristic of the overall group.</u> The majority (59%) were first time offenders with no previous history. • <u>There was no diagnosis of mental disorder in 56% of cases, however, where there was a diagnosis, dementia was the most common (19%); depression (6%); schizophrenia (6%) mild learning disability (3%). This paper found poor use of diagnostic tools and investigations in the assessment process. Alcohol history was noted in 79% of cases, 41% of patients being regular users.</u> • <u>This paper suggests that an integrated approach to assessment and management of older forensic populations is required.</u> 	<p>This paper argues for the focus on referrals to medium secure forensic services in UK, with the aim to review the complex needs and describe the characteristics of older offenders. This paper suggests that an integrated approach to assessment and management of older forensic populations is required.</p>
<p>Fazel & Grann (2002)</p>	<ul style="list-style-type: none"> • <u>Sample of 210</u> • <u>Older people offenders (60+)</u> 	<ul style="list-style-type: none"> • <u>There appear to be important differences in psychiatric morbidity between older offenders and younger offenders who come into</u> 	<p>There appear to be important differences in psychiatric morbidity between older offenders</p>

	<ul style="list-style-type: none"> • 16 females and 194 males Sweden • F210 forensic psychiatric evaluations • No distinction between career criminals/old offenders 	<p>contact with forensic psychiatric services.</p> <ul style="list-style-type: none"> • Established that 7% had a diagnosis of dementia; 32% psychotic illness; 8% depressive or anxiety disorder; 15 % substance abuse or dependence; 20% personality disorder. Older offenders were significantly less likely than younger offenders to be diagnosed with schizophrenia or personality disorder and more likely dementia or affective psychosis. 	<p>and younger offenders who come into contact with forensic psychiatric services. This research may assist in the planning of forensic and therapeutic services for the increasing number of older adults passing through the criminal justice system.</p>
Fazel, Hope, O'Donnell & Jacoby (2002)	<ul style="list-style-type: none"> • Sample of 203 (101 individuals who committed older sex offences and 102 individuals who committed older non sex offences) • Older people offenders (59+) years and older • Male sample • No distinction in analysis between career criminals/old offenders/'old-timers' <p>Research report using standardised semi-structured interviews</p>	<ul style="list-style-type: none"> • Found 6% of older individuals who committed sex offences had a psychotic illness; 7% major depressive episode; 33% personality disorder; 1% dementia. -These figures did not significantly differ from older non-sex offenders, but d • Differences occurred when considering personality traits – sex offenders had more schizoid, obsessive-compulsive and avoidant traits, and fewer antisocial traits compared with non-sex offenders. • Although no distinction was made between career criminals/old offenders/'old-timers' in the analysis, median time spent in prison was reviewed and not significantly different for those who had committed sex offences compared with those who had not committed sex offences. 	<p>This paper focussed on demographics and personality characteristics and discussed the similar levels of mental illness across sex offenders and non-sex offenders. However, different personality traits were found across these groups, suggesting that personality traits were better related to offence type than mental health concerns.</p>
Fazel, O'Donnell, Hope, Gulati & Jacoby (2007)	<ul style="list-style-type: none"> • Sample of 100 prisoners • Older sex people offenders (59+) • Male sample • Sex and non-sex offence 	<p>The mean age of the individuals who committed sex and non-sex offenders crimes was similar (66 years [sd 4.6] vs 64.9 years [sd 4.9] range 60–88 years).</p> <ul style="list-style-type: none"> • This paper found no evidence to support that older sex offender's 	<p>This paper discussed, based on empirical evidence, that there was no evidence to support that older sex offender's frontal lobes differ from older non-sex offender's frontal</p>

	<p><u>comparison</u></p> <ul style="list-style-type: none"> • <u>No distinction in analysis between career criminals/old offenders/'old-timers'</u> 100 prisoners were administered frontal lobe tests 	<p><u>frontal lobes differ from older non-sex offender's frontal lobes.</u></p> <p><u>There were no significant differences in test scores for frontal lobe tasks between the two prisoner samples.</u></p> <ul style="list-style-type: none"> • <u>There were no significant differences in socio-economic class, although there was a trend for sex offenders to be from lower socio-economic classes. 15% of the total sample did not consent to be interviewed, and the non-consenters were similar in age, type of offence, ethnicity but had been in prison longer, than those who did consent. There were no significant differences in test scores for frontal lobe tasks between the two prisoner samples.</u> • <u>Although no distinction made between career criminals/old offenders/'old-timers' in the analysis, median time spent in prison was reviewed and not significantly different for those who had committed sex offences compared with those who did not commit sex offences.</u> 	<p>lobes.</p>
<p>Feldmeyer & Steffensmeier (2007)</p>	<ul style="list-style-type: none"> • Older <u>people-offenders</u> (55+) • <u>Federal Bureau of Investigation data – reports from uniformed police officers</u> • <u>Data was taken across different years for comparison (e.g. 1980 = 833 arrests; 1990 = 657 arrests and 2004 = 590 arrests in 55+)</u> • <u>No distinction in analysis between</u> 	<ul style="list-style-type: none"> • <u>Looked at trends in older offender crime rates over 25 years</u> <p><u>n</u><u>ote</u><u>i</u><u>n</u><u>g</u><u>s</u> that there has been very little change in the profile of the older offender, with arrests continuing to be overwhelmingly for minor offences and alcohol-related violations.</p> <ul style="list-style-type: none"> • <u>Shifts in crime committed by older people have been paralleled by similar trends among the nonelderly, indicating that recent social, economic, and legal changes have had similar impacts on arrest patterns across age groups.</u> 	<p>This paper discussed in the trends in older offender crime rates over past 25 years. Generally, these remained the same for uniform crime reports of arrests with primarily minor and alcohol-related offences.</p>

	<u>career criminals/old offenders</u>		
Greene & Gibson (2013)	<ul style="list-style-type: none"> • Book chapter - review • Older <u>peopleadults</u> in the legal system 	<ul style="list-style-type: none"> • <u>Highlights that older people are the most increased offender population (up by 15.1%) in the US compared to 18-44 (up by 0.6%) and under 18 (up by 2.6%) in time period 2000-2010.</u> Reports that <u>olderaging</u> prisoners are far less likely to recidivate compared to the younger population. • <u>Some key features for older individuals in prison are the accelerating aging process; low levels of self-care; high psychiatric conditions, social and emotional affects; victimisation; cut off contact to reduce their suffering and negative self-reflection of their lives.</u> • <u>Notes that older offenders present issues as diverse as: health care needs; end-of-life care and decisions; social security, medication, and Medicare entitlements; estate planning, wills, trusts, and probate, cognitive impairment and guardianship, and elder abuse.</u> 	This paper discusses that older people are prevalent in the legal system and present issues as diverse as health care needs; end-of-life care and decisions; social security, medication, and Medicare entitlements; estate planning, wills, trusts, and probate, cognitive impairment and guardianship, and elder abuse. This paper highlights the need for a focus on older prisoner wellbeing; physical health and mental health care.
Gross (2007)	<ul style="list-style-type: none"> • Book chapter - review • <u>Older peopleoffenders (55+) in the legal system</u> 	<ul style="list-style-type: none"> • <u>Provides a summary of information older offenders in the USA from 1971-2004. from 2000-2004.</u> During the <u>period 2000-2004 crime by older people rose. is time period,</u> • <u>violent crime arrests increased in both number (from 7251 to 8,893) and proportion (1.8% to 2.1%) based on US data.</u> The 55-64 age group showed an increase in the number of violent, <u>property, and drug</u> crime arrests <u>during 2000-2004. Property crime arrests remained the same.</u> • <u>Violent crime rate decreased slightly for those aged 65+, while</u> 	This paper discussed the characteristics of older offenders and typologies, data around older arrestees and long-term prisoners, showing an increase in the number of violent crime arrests.

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		<p><u>property and drug crime rates remained relatively stable for this age group.</u></p>	
<p>Hunt <i>et al.</i> (2010)</p>	<ul style="list-style-type: none"> • <u>Sample of 365</u> • <u>Older homicide perpetrators Older peopleoffenders (311 were 45-64+ and 54 wereaged 65+)</u> • <u>90% were male and 10% were female</u> • 8-year period (1997-2004) • <u>Data from the National Confidential Inquiry into Homicide by people with Mental Illness (Appleby et al., 1999)</u> • <u>No distinction in analysis between career criminals/old offenders</u> 	<p>Highlights some key factors and characteristics of older perpetrators of homicide, such as;</p> <ul style="list-style-type: none"> • <u>Perpetrators aged 65 and over were most likely to use strangulation/suffocation and the victim was more often a female and a family member or spouse.</u> • <u>Older perpetrators had high rates of affective disorder and were more likely to be mentally ill at the time of the offence.</u> • <u>Of the 54 older perpetrators who killed a family member or spouse, seven (13%) were considered 'mercy killings'.</u> • <u>Although no distinction made between career criminals/old offenders in the overall analysis, 6/54 of the 65+ group and 92/311 of the 45-64 group had a previous conviction for a violent offence.</u> 	<p><u>The results are consistent with American Department of Justice and Australian Institute of Criminology data with regards to demographics and offence characteristics of perpetrators. Older perpetrators were less likely to have a history of violence and more likely to target a female and a family member. Also, more likely to have symptoms of mental illness at the time of the offence. Preventing homicide among older people might be best achieved through more specialised GP training to improve recognition and treatment of depression.</u></p>
<p>Overshott <i>et al.</i> (2012)</p>	<ul style="list-style-type: none"> • <u>Sample of o</u> • <u>OlderElderly prisonersrisoners (60+)</u> • <u>91% male (43) and 9% female (4)</u> • <u>Data from the National Confidential Inquiry into Homicide by people with Mental Illness (Appleby et al., 1999)</u> • <u>No distinction between career</u> 	<ul style="list-style-type: none"> • <u>The study was carried out as part of the England and Wales National Confidential Inquiry into Suicide and Homicide by People with Mental Illness based on a five-year sample. 2662 perpetrators convicted of homicide were reported to the Inquiry. 47Forty-seven (2%) of the perpetrators were aged 60 years or older; 22 of the 47 (1%) were 65 years or older.</u> • <u>Homicide incidents perpetrated by older people typically involved a man killing his partner in an impulsive manner. The most common method was by using a sharp instrument (34%), followed by the use</u> 	<p><u>The paper aims to describe the circumstances in which older people commit homicide, concluding that homicide incidents perpetrated by older people typically involve a man killing his partner in an impulsive manner. The paper provides social, behavioural and offence characteristics and discusses perpetrators with psychiatric reports. The study highlights the prominence of depression in older perpetrators</u></p>

	<p><u>criminals/old offenders</u></p>	<p>of a blunt instrument (26%). The use of firearms was rare (11%).</p> <ul style="list-style-type: none"> • <u>Perpetrators aged 65 years and older were significantly more likely to kill a current or former spouse/partner and less likely to kill an acquaintance.</u> • <u>Forty-four per cent of perpetrators over 65 years old suffered from depression at the time of the offence. R, whereas rates of schizophrenia and alcohol dependence were low.</u> 	<p><u>of homicide, rather than the psychotic disorders and alcohol/drug problems seen in younger perpetrators.</u></p>
<p>Putkonen, Weizmann- Henelius, Repo- Tiihonen, Lindberg, Saarela, Eronen & Häkkänen- Nyholm (2010)</p>	<ul style="list-style-type: none"> • <u>Sample of 25</u> • <u>Older homicide perpetrators Older Prisoners prisoners (60+)</u> • <u>Three females and 22 males</u> • <u>Homicide cases</u> • <u>A Quantitative analysis of large national dataset from Finland</u> • <u>Explores differences between career criminals/old offenders</u> 	<p>Presents data on older homicide perpetrators who were in a forensic psychiatric examination in Finland 1995–2004 and their gender-matched comparison group of younger homicide offenders. The study found that:</p> <ul style="list-style-type: none"> • <u>Offenders 60 years or older were diagnosed less often than the younger ones with drug dependence and personality disorders and more often with dementia and physical illnesses.</u> • <u>The mean Psychopathy Checklist—Revised total scores as well as factor and facet scores were lower in the 60 or older age group. The 60 or older age group had significantly lower scores than younger perpetrators on eight individual items of social deviance. The interpersonal/affective factor 1 scores did not differ.</u> • <u>The older offenders with previous criminal offending differed from those without in two ways: they had higher rates of alcohol abuse/dependence (75% vs. 31%) and were diagnosed more often with a personality disorder (67% vs. 23%).</u> 	<p><u>The paper suggests that there are age differences in homicide offenders, with older offenders scoring lower for psychopathy, but having more dementia and/or physical illness than younger offenders, and therefore presenting different needs in prison.</u></p>
<p>Reutens,</p>	<ul style="list-style-type: none"> • <u>Sample of 87 cases</u> 	<p>Presents a systematic search of legal, criminological and media</p>	<p><u>The paper highlights the high number of</u></p>

<p>Nielsen & Large (2015)</p>	<ul style="list-style-type: none"> • Older homicide perpetratorsOlder prisoners (55+) • 57 males and 30 females • Homicide • Secondary data analysis of database searches • No distinction in analysis between career criminals/old offenders 	<p>databases for cases of homicide committed by people aged 55 and over, during the 18 years from 1993 to 2010.</p> <p>Eighty-seven cases were identified through databases. Legal documents were obtained for 70 offenders (about 5% of homicides committed in NSW in the period of the study).</p> <ul style="list-style-type: none"> • The proportions of male offenders and rates of firearm use were similar to other age groups. Twelve of the 14 homicides using guns occurred outside the metropolitan area. • OlderElderly offenders were more likely than younger perpetrators to have cognitive impairment or psychotic illness. • Victims were more likely to be female and in a domestic relationship with the offender. 	<p>physical health problems and high proportion of individuals with cognitive impairments and psychosis, compared to general (younger) homicide perpetrators.</p>
<p>Rodriguez, Boyce & Hodges (2017)</p>	<ul style="list-style-type: none"> • Sample of 100 (32 first time sex offenders; 36 historic sex offenders; 32 non sexual offenders) • Older people offenders (50+) • Male sample • First time sex offenders • Empirical study 	<p>Presents the findings from a battery of neuropsychological measures administered to 100 participants (32 first time sex offenders; 36 historic sex offenders; 32 non sexual offenders).</p> <ul style="list-style-type: none"> • Both FTSOs and HSOs showed significant impairment on tests of executive function (including verbal fluency, trail-making, and the Hayling test of response inhibition) as well as on tests of verbal and verbal memory compared to NSOs; • T, however, there was no difference between the two sex offender groups. 	<p>Elderly sex offenders demonstrated poorer neuropsychological performance than elderly adult non-sex offenders did, although there was no difference between elderly first-time and historical offenders. Cognitive deficits may increase the risk of sexual offending due to impaired capacity in self-regulation, planning, judgment, and inhibition. The authors suggest that proportion of elderly adult sex offenders may be harbouring acquired frontal lobe pathology.</p>
<p>Stanback &</p>	<ul style="list-style-type: none"> • Sample of 972 	<p>Presents analysis of the Chicago Homicide Dataset (1965-1995) and</p>	<p>While the study focuses primarily on victim</p>

King-Kallimanis (2011)	<ul style="list-style-type: none"> • Older homicide perpetratorsOlder prisoners (50+) • Male prisonerssample • Secondary data analysis of Chicago Homicide Dataset • No distinction in analysis between career criminals/old offenders 	<p>investigates covariates associated with four categories of homicide committed by older offenders: intimate, family, acquaintance, and unrelated victims. A multinomial multivariate regression, where unrelated homicides were defined as the base outcome,The findings reveal revealed that:</p> <ul style="list-style-type: none"> • in intimate and family comparisons,that women were at a significantly higher risk of victimisation. • Crimes that occurred in residences were significantly associated with all three homicides groups compared with unrelated homicides. • The use of alcohol was significant in crimes where an acquaintance was the victim. 	<p>characteristics, the paper does highlight interesting findings around interpersonal relationship issues in intimate or family homicide. This suggests a need to better understand spousal relationships further, which might be one important way to identify households at risk of violence (for example, stresses of late life, caregiver responsibilities).</p>
Williams & Rikard (2005)	<ul style="list-style-type: none"> • Sample of 51 departments of corrections • Older womenpeopleoffenders (45+) • Female samplemale sample No distinction in analysis between career criminals/old offenders/‘old-timers’ • 	<p>Explores policies and programs for older female prisoners. Interviews were conducted with the Federal Bureau of Prisons and state Department of Corrections (N = 40/51) about their policies and programs for older female prisoners.</p> <ul style="list-style-type: none"> • While 23 States provided care for ageing male prisoners, only two reported providing provision for older female prisoners. • The discussion highlights that female prisoners tend to have greater mental health needs and it is important to highlight the gendered needs of older prisoners. • As this paper focuses on programs and policies it is now outdated. 	<p>The authors highlight that the characteristics of older female prisoners may mean they are particularly low risk. However, they also posit that the lack of provision amounts to neglect. The discussion highlights that female prisoners tend to have greater mental health needs and it is important to highlight the gendered needs of older prisoners.</p>
Yorston (2010)	<ul style="list-style-type: none"> • Older prisoners • Literature Rreview paper 	<p>Primarily focuses on the characteristics of older offendersprisoners. The paper highlights that:</p>	<p>The paper outlines some of the key characteristics and areas where more research</p>

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		<ul style="list-style-type: none">• the types of offences being committed has remained stable• there is an over-representation of sexual offences against children;• -there are higher levels of psychotic and mental disorders in older homicide offenders• ; there is a lack of evidence around some types of crime (e.g. arson and acquisitive offending)• ; that alcohol is becoming recognised as a problem.• The paper also mentions that there is a lack of research about delirium and personality disorders, some research about dementia.• -The review suggests older offenders people may make greater use of firearms (findings from US studies) and that there are lower arrest and conviction rates for older people.	<p>is needed. The author highlights that there are lower arrest and conviction rates for older people but that — when considering risk assessment — the ‘potential for causing harm should never be underestimated on the basis of age alone’.</p>
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4.0 Summary Discussion of results and concluding discussion

The population focus of the papers was as follows: General older prisoners, seven papers; Female older prisoners, one paper; Psychiatric evaluated older prisoners, two papers; Older sex offenders, five papers; Older homicide offenders, six papers ([see table 1.0 for the breakdown](#)). Thematic summaries of these papers are presented below, under these headings.

4.1 General

Four of the seven papers considered within this category were review papers. The papers that presented new research findings considered the general older prisoner population included data outlining the types of offences committed by this group. Beaufrère et al. (2014) found physical assaults were the main suspected crime in their sample of 180 older suspects in France. For example, the Centre for Policy on Ageing (2016) noted that violent crimes remained consistent across all age groups for male offenders in the UK (under 25; 25-49; 50-59; 60+). As a proportion of offences committed by each age group, however, while the proportion of sexual offences were highest in older offenders (accounted for 13% of 25-49 year olds; 34% of 50-59 year olds; & and 59% of 60+) those over age 60. The types of offence committed by female offenders remained relatively stable the same across age groups ([Centre for Policy on Ageing, 2016](#)).

While some studies note the relatively stable nature of offending by older people. (Feldmeyer and Steffensmeier (2007) for example found very little change in the profile of the older offender, with arrests mainly for minor offences and alcohol-related violations. However, the most recent data in that study is now 15 years old; Yorston, 2010), Similarly, Yorston's (2010) review paper suggests that the types of offences being committed by older people have remained stable. However, contradictions appear in the literature evidence base. For example, while Feldmeyer and Steffensmeier report most known offending by older people being minor, in the same year and in the same country (USA) Gross (2007) reported increased violent crime in this group. Gross' (2007) review paper, for example, notes an increase in other research has documented an increase in some types of offending (e.g. violent crime among older people. While contradictions appear, both, Gross (2007), Feldmeyer and Steffensmeier (2007) and Yorston (2010) highlighted the increased recognition of the role of alcohol in offences committed by older people. Contradictions appear in the evidence base. For example, while Feldmeyer and Steffensmeier report most known offending by older people being minor, in the same year and in the same country (USA) Gross (2007) reported increased violent crime in this group. and Yorston (2010) notes the overrepresentation of sexual offences committed by older offenders.

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3 A number of papers included in this review discuss the ~~stress the importance of the health care~~
4 ~~needs of this population,~~ given the prevalence of current health problems compared to younger
5 ~~offenders and the increased support required for daily tasks such as bathing~~ (Beaufrère et al., 2014;
6 ~~Centre for Policy on Ageing, 2016; Greene & Gibson, 2013).~~ This includes physical health issues as
7 well as psychiatric and psychological health concerns (Beaufrère et al., 2014; Centre for Policy on
8 Ageing, 2016; Greene & Gibson, 2013; Yorston, 2010). The prison environment is designed for young
9 and able-bodied people (Baidawi et al., 2011) and older adults are often not willing or able to
10 participate in correctional, criminal, or probation programs (Greene and Gibson, 2013). The rise
11 in numbers of older prisoners makes it difficult to ignore the needs of this population. The potential
12 vulnerability and victimisation of older prisoners is also noted in some studies (Centre for Policy on
13 Ageing, 2016; Baidawi et al., 2011). ~~However, Yorston (2010, p695) notes that ‘the potential for~~
14 ~~causing harm should never be underestimated on the basis of age alone’.~~ Yorston (2010), however,
15 highlights that – when considering risk assessment – the ‘potential for causing harm should never be
16 underestimated on the basis of age alone’ (p 695).

17 The research in this section presents agreement over the existence of physical and mental health
18 needs in the older offender population, but there is a lack of consistency in terms of the reported
19 offending patterns of this group. The various methodologies employed (e.g. some presents a s
20 snapshot in time, other comparisons over time, others comparisons against other age groups) make
21 comparison between studies difficult. Baidawi et al makes the case that defining the ‘older prisoner’
22 is essential in order to do comparative research and a lack of clarity can impede a firm evidence base
23 being formed around related issues, for example, offence types, recidivism rates, health concerns
24 and prison management programs. The data presented in these empirical and review studies is
25 sometimes based on small sample sizes (e.g. Beaufrère et al., (2014), varied in methodology, and
26 typically fails to make a clear distinction between career criminals/old offenders.

4.2 Female

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Williams and Rikard (2005) conducted the only study found through this systematic review to focus
solely on older female prisoners. While their research focused on policies and programs, Williams
and Rickard (2005) highlight that the characteristics of older female prisoners may mean they are
particularly low risk, but that there is a need to take account of gender-specific needs. For example,
women in contact with the criminal justice system have particularly high levels of need around
mental health (Caulfield, 2016). Baidawi et al. (2014), in their review paper, note the likely
complexity of ‘minority’ groups, including women. ~~Furthermore, as noted above, the over-~~

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3 representation of older sex offenders is male-specific, in the UK at least (Centre for Policy on Ageing,
4 2016).

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6 Eight papers (Beaufrère *et al.*, 2014); Block, 2013; Curtice *et al.*, 2003; Fazel & Grann, 2002; Hunt *et*
7 *al.*, 2010; Overshott *et al.*, 2012; Putkonen *et al.*, 2010; Reutens *et al.*, 2015) include women and
8 men in their samples, although only Block and Fazel and Grann include any breakdown of findings
9 according to gender. Block, in her homicide study, found that older women and men were most
10 likely to have killed an intimate partner, with friend second and acquaintance third for women (&
11 reversed for men). Fazel and Grann report that older women were less likely than men to be
12 'deemed insane' (p.911), contrary to those younger than 60. They make no further reference to
13 gender in their analysis. Unsurprisingly, given that men make up the majority of those in contact
14 with the criminal justice system, the numbers of women in these studies is small (ranging from 1
15 woman, Curtice *et al.* to 54 women, Block).

26 27 4.3 Psychiatric

28 Curtice *et al.* (2003) found that of the 32 cases of older offenders referred to a regional psychology
29 service in the UK, sexual offending was the most common offence. Dementia was a common
30 diagnosis in the cases reviewed (19%). In a review of the psychiatric evaluations of 210 older
31 offenders, Fazel and Grann (2002, also UK) found that this group were less likely to be diagnosed
32 with a mental health condition (including schizophrenia and personality disorders) than younger
33 offenders, but more likely than the general offending population to be diagnosed with dementia or
34 affective psychosis. Yorston *et al.*, (2010) notes homicide followed by suicide is more common in
35 older adults than younger homicide perpetrators. These findings suggest important differences in
36 the psychiatric and cognitive needs of older and younger prisoners, which should be investigated
37 further - and if more widely applicable - taken into account when planning provision for older
38 prisoners. Yorston *et al.*, (2010) notes homicide followed by suicide is more common in older adults.
39 However, the limited recent published literature available on the needs of this group means more
40 systematic research is needed in this area.

51 52 4.4 Sex Offenders

53 In his review of research on older sex offenders, Booth (2016: 5) states that 'when faced with an
54 older sexual offender, the index of suspicion for cognitive issues should be high', although he notes
55 that the general risk level presented by this group may be lower than younger sex offenders. Fazel *et*
56 *al.* (2002) report similarly high levels of mental health problems and neurocognitive disorders among
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3 older sex offenders and older non-sex offenders. However, they do note differences in personality
4 traits, with older sex offenders having higher rates of schizoid, obsessive-compulsive, and avoidant
5 traits, and fewer antisocial traits. As part of the same wider study, Later work by Fazel et al. (2007)
6 administered frontal lobe tests to older sex offenders and older non-sex offenders, finding no
7 significant frontal lobe differences between the two groups. The only notable difference between
8 the groups was the average lower socio-economic status of the sex offender group. The latter
9 sample is likely to be subset of the former (although this is not explicitly stated in the paper).
10 Chua et al.'s (2018) systematic review paper of older first time sex offenders reports a range of
11 sexual offence types, some historic and some current/on-going, and a higher incidence of
12 neurocognitive disorders than found in younger offenders. They report a high incidence of victims
13 with mental illness and/or developmental disorders, with most victims being children or older
14 people. However, despite being a systematic review paper, the overall sample considered in the
15 paper is very small (26 individuals). Rodriguez et al.s (2017) sample of first time and historic older
16 sex offenders demonstrated poorer neuropsychological performance than older non-sex offenders
17 did, although there was no difference between the older first-time and historical offenders.
18 Cognitive deficits may increase the risk of sexual offending due to impaired capacity in self-
19 regulation, planning, judgment, and inhibition. The authors suggest that proportion of elderly adult
20 sex offenders may be harbouring acquired frontal lobe pathology. However, the sample size of 100
21 in this study limits generalisability. Fazel et al (2007) suggest that other possible risk factors for
22 sexual offending, such as psychosocial -and criminal history, might be areas for future research.
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40 4.5 Homicide

41 Block (2013) looked at homicide cases committed by older offenders, finding that ~~male~~ older
42 offenders were more likely than younger offenders to have killed an intimate partner. Reutens et al.
43 (2015) also found that the victims of older homicide perpetrators were likely to be female and in a
44 domestic relationship with the offender. -Older offenders in Block's~~their~~ sample were less likely than
45 younger offenders to have a history of violence, more likely to commit the homicide alone, and the
46 most frequent motive was noted as 'general domestic altercation'. Stanback and King-Kallimanis
47 (2011)'s work suggests a need to better understand spousal relationships, which might be one
48 important way to identify households at risk of violence (for example, stresses of late life, caregiver
49 responsibilities). Research by Hunt et al. (2010) and Overshot et al. (2012) add support to this,
50 finding that homicide victims of older perpetrators are likely to be a female family members or
51 spouse. Both studies also found high rates of perpetrator mental illness at the time of the offence,
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3 particularly depression. In Reutens *et al.*'s study older offenders were more likely than younger
4 perpetrators to have cognitive impairment or psychotic illness. Overshot *et al.* (2012) found low
5 rates of schizophrenia and alcohol dependence than seen in younger homicide perpetrators.
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8 Hunt *et al.* (2010) suggest there is a need for improved recognition and treatment of mental illness
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10 in older people, and posit that preventing homicide among older people might be best achieved
11 through more specialised GP training to improve recognition and treatment of depression. The
12 existing research, however, underlines the complexities with Overshot *et al.* (2012) finding lower
13 rates of schizophrenia and alcohol dependence than seen in younger homicide perpetrators.
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15 Putkonen *et al.* (2010) present data on older homicide perpetrators in forensic psychiatric
16 examination. They reporting lower levels of drug dependence and personality disorders, and lower
17 scores of the Psychopathy Checklist, than younger perpetrators (data on older homicide
18 perpetrators in forensic psychiatric examination). However, Putkonen *et al.* and perhaps
19 unsurprisingly, they found higher rates of dementia and physical illness.

28 4.65-0 SummaryConclusions

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30 The aim of this paper was to systematically search the literature to select and review all existing and
31 relevant studies that have explored the needs and characteristics of older prisoners. After a
32 thorough search and selection process 21 papers, from 2002 onwards, were included in the final
33 analysis. These papers came from the United Kingdom, Australia, France, the USA, Canada, New
34 Zealand, Sweden, Japan, and Finland.

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40 The contradictions within the existing evidence base make it difficult to reach firm conclusions about
41 the needs and characteristics of older offenders. For example, some papers present older offending
42 patterns as relatively stable over time while others suggest there have been increases in certain
43 types of crime committed by older people (e.g. violent crime). There is, however, some consensus
44 regarding older people who have committed certain types of offences. For example, where older
45 people commit homicide the victim is likely to be an intimate partner.

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51 What is clearer from the existing research are the relatively high levels of need in this group.
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53 However, inconsistencies in the existing research again underline the complexities of reaching firm
54 conclusions, with some agreement about higher incidences of cognitive impairment - particularly in
55 certain sub-groups of older offenders - but differences where mental health is concerned. Where
56 research does exist on needs and characteristics, this primarily relates to older men and very little is
57 known about older women in contact with the criminal justice system. Given the gendered nature of
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3 needs of younger adults in the criminal justice system (Caulfield, 2010) and that there are physical
4 differences in the way men and women age (menopause, for example, is briefly discussed in Public
5 Health England guidance on gender specific guidance for improving health and wellbeing in prisons
6 in England: PHE, Peden *et al.*, 2018), this is an important area for future consideration. How
7 offending patterns and needs relate to risk and risk assessment is a point without any clear
8 consensus.
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15 Any conclusions drawn from the existing literature should be taken with caution. There are a
16 relatively small number of recent papers focused on the needs and characteristics of older people in
17 contact with the criminal justice system, and sample sizes are generally small (overall, and even
18 smaller when broken down into sub-categories of older offenders). Furthermore, when reviewing
19 existing studies if it not possible to compare like for like. There are various methodologies employed
20 with some studies presenting a snapshot in time, others making comparisons over time, and others
21 making comparisons against other age groups, making comparison between studies difficult. In this
22 current systematic review we included older people in contact with the criminal justice system
23 broadly to avoid missing important learning, but this is a further example of an inability to compare
24 like for like. The existing research also often fails to make clear distinctions between groups of older
25 prisoners, such as whether individuals are career criminals (prison recidivists), old offenders (first
26 incarcerated age 55 or older), first offenders (first incarcerated before the age of 55), or 'old-timers'
27 (growing old in prison) (Goetting, 1984). For example, Block (2013) identifies prior criminal history as
28 one potential characteristic of those perpetrating crime at age 60+, but does not break down her
29 analysis to look at the separate characteristics of old offenders vs. recidivists.
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42 Overall, there is a lack of consistent recording and reporting of characteristics and demographics and
43 - as Chua *et al.* (2018) note in their review of the characteristics of first time older sexual offenders -
44 a need for better designed, more systematic studies. Perhaps even more basic a start-point, Baidawi
45 *et al* (2011) make the case that defining the 'older prisoner' consistently is essential in order to do
46 comparative research.
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51 4.7 Conclusion

52 Overall, 21 papers presented reviews of or research on the characteristics of older prisoners. These
53 papers came from the United Kingdom, Australia, France, the USA, Canada, New Zealand, Sweden,
54 Japan, and Finland.
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3 The prison population is ageing, and this is an international issue, yet there remains a lack of
4 consistency about how older prisoners are defined and understood. The papers reviewed here
5 suggest that older prisoners have significant needs, ~~and therefore present challenges, around~~
6 ~~physical and mental health in a system primarily design for young men. In particular, dementia and~~
7 ~~cognitive decline appear prevalent in some groups of older prisoners. Some of these needs are also~~
8 ~~characteristics related to the types of offences common in older prisoners. For example, there is~~
9 ~~evidence to suggest a link between mental health problems in older individuals and violent~~
10 ~~offending, and that the victims of these crimes are often spouses or other close family members of~~
11 ~~the offender but evidence about the prevalence of needs and their relationship to factors such as~~
12 ~~offence type, is mixed. Much of this is because the approach to the existing research has not been~~
13 ~~consistent.~~

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15 A better understanding of ~~these~~ patterns and precipitators would enable an evidence-based
16 conversation about prevention. ~~In addition, dementia and cognitive decline has been found at a~~
17 ~~relatively high rate in older sex offenders.~~ If we acknowledge, for example, that the prison
18 environment – or certainly most current, typical prison environments – is likely to increase the speed
19 of cognitive decline, and this may be an issue with some sub-groups of older prisoners, there are
20 important questions here about both need and risk. ~~Indeed, there has been an assumption that the~~
21 ~~risk presented by older prisoners may be lower than younger sex offenders, despite their victims~~
22 ~~typically being vulnerable groups (children and elderly, Chua *et al.* 2018).~~ Many studies also
23 ~~consider~~ include prisoners who have grown old in prison alongside with those who have entered
24 prison at a late age (for current or historic offences). It would be useful to look at the different
25 factors relevant to these groups. The literature to date has also been almost exclusively focused on
26 the older *male* prison population, while older women have been almost entirely excluded from the
27 literature.

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29 What is clear from this systematic review is that there is a lack of clear understanding about the
30 characteristics of older prisoners as a whole, despite this being an international issue. A wealth of
31 information exists in our criminal justice, correctional, and government systems about prisoners,
32 their characteristics, their need and risk, their history, and the judicial decisions surrounding their
33 cases. Future research should make use of these data sources to provide a much clearer
34 understanding of this group, their routes to prison, their needs, and the challenges they present.

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36 A better and coordinated understanding of the reasons behind the significant increase in the older
37 population in prison could: a) guide the development of regimes that are less reactive and support
38 the specific needs of older offenders, including the need for meaningful activities while in prison
39 (Hayes, Burns, Turnbull, and Shaw, 2013; NACRO, 2009; Wilkinson & Caulfield, 2017); b) allow for
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3 fuller consideration of the risk profile of this group; and c) provide evidence to support the
4 development of appropriate assessment and treatment. Increased understanding of this group and
5 the precipitating factors surrounding their offence may not only provide lessons for better
6 supporting those convicted and reducing their needs and risk, but also may provide lessons for the
7 prevention of such crimes.
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Appendix A *List of databases searched and results*

CINAHL complete	1992-2018	196
Cochran Library	2001-2016	14
ERIC	1967-2018	62
Europe PubMed Central	2014-2018	68
MEDLINE	1948-2018	46
PsycARTICLES	1934-2018	12
PsycINFO	1923-2018	159
SAGE Complete A-Z List	1924-2018	181
ScienceDirect Journals	1995-2018	561
Scopus	2010-2019	380
ProQuest Central		366
Web of Science	1948-2018	78
Social Care online	1996-2016	74
CINAHL Plus with Full Text	Nursing and allied health journals 1992-2018	199
Medline with full text	Medicine and healthcare 1948-2018	306
Psychology and Behavioral Sciences Collection	Emotional and behavioural characteristics. 1971-2018	91
SocINDEX with Full Text	Sociological research 1975-2017	67
Cambridge core	Digitised backfiles of Science, Technology and Medicine journals, and Humanities & Social Sciences journals from Cambridge University Press	1
JSTOR	JSTOR is a digital library of academic journals, books, and primary sources. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations.	9
PubMed	biomedical literature from MEDLINE, life science journals, and online books	34
ProQuest	A broad range of full-text and bibliographic databases hosted by Proquest Included: Dissertations and theses; Scholarly journals; Books; Working papers; Trade journals	463
Zetoc	The British Library's Electronic Table of Contents.	16

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	Contains details of articles from 20,000 current journals and 16,000 conference proceedings. All subjects covered, from 1993	
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Appendix B Search Strings Used in Literature Searches

	Search Topic	Search Terms ^a	Search Field
1	Older Offender	Older offender OR Elderly Offender OR Older prisoner OR Elderly Prisoner OR Aging Prisoners OR Aging Offenders OR Geriatric offender OR Geriatric prisoner OR Prisoner over AGE OR Offender over AGE "Older offender" OR "Elderly Offender" OR "Older prisoner" OR "Elderly Prisoner" OR "Aging Prisoners" OR "Aging Offenders" OR "Geriatric offender" OR "Geriatric prisoner" OR "Prisoner over AGE" OR "Offender over AGE"	All text
2	Health	Health OR Well-being OR Psycholog* OR Psyc*	All text
3	Violence	Violen* OR Aggressive OR Domestic OR intimate partner violence OR Deviance OR Antisocial	All text
4	Needs	Criminogenic Needs OR supportive needs	All text
5	Risk?	Risk assessment OR Crime committed OR Offence type (sub-search terms needed??) Or Violence OR Violent offence Or Sexual offence OR First offence OR First timer	All text
6	Offender typology	Life course persistent? OR First-time older <u>OR Repeat offender</u> OR	All text
7	Intervention or cause	Characteristics OR Dementia OR Mental health (under 'causes' rather than needs) OR Mental illness OR Ageing population OR Growing old OR Longer sentences OR Indeterminate sentence OR Historic	All text

Appendix C – PRISMA



Amended PRISMA 2009 Flow Diagram

