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Psychological Distress Among Older Prisoners: A Literature Review

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Older people constitute the fastest growing age group among many prisoner populations worldwide, yet little is known about the mental wellbeing of this population. This article reviews research examining the level of psychological distress experienced by older prisoners, as well as the factors associated with this phenomenon. Findings suggest that older prisoners likely experience levels of psychological distress which are similar to that of younger prisoners and greater than that of older people in the general community. Personal, demographic, prison, and social factors associated with psychological distress are also identified from the literature and implications for future research are discussed.

BACKGROUND

This article reviews the literature relating to the level of psychological distress and the factors associated with distress among older prisoners. Older prisoners are the fastest growing age group in various prison systems around the world, including in the United States, United Kingdom, Australia, New Zealand, Japan, and Canada (Aday & Krabill, 2012; Baidawi et al., 2011; Howse, 2003; Johnson, 2000; New Zealand Department of Corrections, 2014; Uzoaba, 1998). Although some older prisoners first enter prison at an older age, others grow old while incarcerated, and ageing recidivist offenders enter and exit prison over their lifetime (Aday, 2003). There is however a lack of consensus on what age constitutes an older prisoner and definitions vary substantially, from 45 years and older to 65 years and older (Aday & Krabill, 2012). Given the population growth of older prisoners, correctional services

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require an understanding of older people in prison to enable effective planning and management strategies.

One identified issue is the mental wellbeing of older inmates, at least one half of whom are estimated to suffer from mental illnesses, commonly depression or anxiety (Aday & Krabill, 2011; Fazel, Hope, O'Donnell, & Jacoby, 2001; Hayes, Burns, Turnbull, & Shaw, 2012; Kakoullis, Le Mesurier, & Kingston, 2010; Koenig, Johnson, Bellard, Denker, & Fenlon, 1995). Two U.K. studies have characterized the mental health problems among older male prisoners as both underdiagnosed and undertreated (Fazel, Hope, O'Donnell, & Jacoby, 2004; Kingston, Le Mesurier, Yorston, Wardle, & Heath, 2011), and evidence suggests that the mental health of older prisoners is worse than that of older people in the general community (Koenig et al., 1995; Kingston et al., 2011).

Given the aforementioned growth in this group, as well as the relatively high prevalence of mental illness among older prisoners, knowledge concerning psychological distress among this group will enable the monitoring of wellbeing, as well as the implementation of specific interventions that may improve the welfare of older inmates. There are also economic incentives to examine this issue, given that psychological distress among older people is associated with worsening health, functioning and wellbeing as well as higher levels of healthcare utilization (Atkins, Naismith, Luscombe, & Hickie, 2013). In the context of limited correctional budgets and the high prisoner healthcare costs, understanding psychological distress may prove useful to identifying interventions that can reduce expenses associated with incarceration and social costs following release.

Defining and Measuring Psychological Distress

Measures and correlates of psychological distress are reported in prison mental health research, however the concept of psychological distress is seldom defined with precision. This may be either due to a presumed common understanding of the term, or may reflect its reference to a range of experiences. Added to this uncertainty is the fact that studies adopt different terminology for psychological distress, including emotional distress and mental distress. This review is guided by the definition of psychological distress put forward by Mirowsky and Ross (2003, p. 23), as "a number of uncomfortable subjective states," encompassing the mood and malaise (or bodily states) associated with depressive (e.g., sadness and worthlessness) and/or anxious states (e.g., worry and restlessness).

Psychological distress is generally considered in dimensional terms, where individuals may be ranked along a continuum of severity. Dohrenwend, Shrout, Egri, and Mendelsohn (1980, pp. 1229–1230) draw an eloquent comparison between psychological distress and the measurement of temperature in medicine, stating that "elevated scores on these scales, like elevated

temperature, tell you that something is wrong," rather than being indicative of a particular condition. As a dimensional construct, psychological distress is useful in understanding the whole experience of a population, rather than solely focusing on clinical cases of mental illness; this enables exploration of psychosocial risk factors among subpopulations, can overcome problems of reporting on population mental health where substantial mental health comorbidity may be present, and may be useful for examining prevention of mental ill health (Newmann, 1989). In contrast, categorical constructs of mental illness, which are conceptualized in dichotomous terms (yes/no decisions regarding the presence or absence of mental illness), are generally more suited to the purposes of ascertaining service delivery or treatment needs (Kessler, 2002; Newmann, 1989).

Quantitative prison research generally uses standardized screening tools such as the General Health Questionnaire (GHQ-12; e.g., Liebling, Durie, Stiles, & Tait, 2005), the Brief Symptom Inventory (e.g., Edwards & Potter, 2004) or versions of Kessler Psychological Distress Scale (e.g., Butler et al., 2006) to investigate psychological distress. As Kessler et al. (2002) explained, these screening scales inquire about a range of nonspecific emotional, behavioral, and cognitive symptoms (e.g., hopelessness, restlessness, and concentration) that are characteristic of a broad range of mental health conditions.

Although there is some debate as to whether qualitative or quantitative methods ought to be adopted in regards to researching psychological distress, there are arguments for tolerance of both approaches. According to Massé (2000), qualitative processes provide meaning and description of the lived experiences of psychological distress, whereas quantitative approaches can enable detection of shared characteristics and norms, and may be useful for public health purposes. For this reason, this article reviews both qualitative and quantitative studies.

Psychological Distress across the Lifespan

Understanding how psychological distress varies across the lifespan contextualizes this issue in relation to older prisoners. In research with large-scale community samples, the proportion of individuals meeting the diagnostic criteria for mental illnesses such as depression and anxiety generally reduces across the lifespan (Kessler et al., 2005; O'Connor & Parslow, 2010). However, the average levels of psychological distress remain relatively stable when measured by scaled instruments—slightly decreasing throughout adulthood and moderately rising again in later old age (i.e., at 75–80 years; Byles, Gallienne, Blyth, & Banks, 2012; Mirowsky & Ross, 1992; O'Connor & Parslow, 2010). The reasons for the discrepancy between levels of distress and clinical diagnoses are uncertain, however authors of historical studies in this area posited that psychiatric diagnoses may fail to capture distress which may be "attributable to disease, grief, poverty, restricted activity, and physical

disability," effectively excluding "much of the sadness and malaise experienced by the elderly" (Mirowsky & Ross, 1992, p. 192; Newmann, 1989). Research has also determined that scaled instruments do not result in artificially inflated distress scores due to age-related changes in cognition, energy, or social inclusion (i.e., there is no evidence of physiogenic bias). Therefore it has been suggested that the complex nature of questioning in certain diagnostic tools potentially minimizes the rate of mental disorders identified in older individuals (Mirowsky & Ross, 1992; O'Connor & Parslow, 2010). This provides further impetus for research examining psychological distress among older prisoners, as opposed to that which solely focuses on mental illness.

Atkins et al. (2013, p. 249) argued that later life depressive symptoms should be considered a public health issue among ageing populations given their association with physical morbidity and mortality (Katon & Ciechanowski, 2002), decreased physical functioning (Stuck et al., 1999), high health service utilization (Katon & Ciechanowski, 2002; Luber et al., 2001), and increased risk of dementia (Jorm, 2001). Higher levels of psychological distress are associated with various fixed factors, including female gender, lower educational status, and increasing age after the age of 75 years (Byles et al., 2012; Mirowsky & Ross, 1992). However modifiable factors associated with psychological distress are also identified, including levels of social support and engagement (Atkins et al., 2013; Golden, Conroy, & Lawlor, 2009; Paul, Ayis, & Ebrahim, 2006), physical activity levels (Strawbridge, Deleger, Roberts, & Kaplan, 2002), sleep cycles (Atkins et al., 2013), functional status, and physical health burden (Paul et al., 2006).

Psychological Distress in Prison Populations

Compared to studies examining prisoner mental illness, research focusing on psychological distress is relatively sparse. Edwards and Potter (2004, p. 135) draw attention to this important distinction, and note that although mental illnesses may be "at least partially physiological in their basis," psychological distress may be more attributable to situational factors, and therefore potentially amenable to prevention and intervention. The greater research interest in mental illness among prisoners perhaps reflects both a biomedical orientation and clinical focus of much prisoner mental health research, which may seek to assess treatment and service delivery needs (Kessler, 2002; Newmann, 1989).

In comparison to community norms, relatively high levels of psychological distress are evidenced in quantitative cross-sectional studies of prisoners in Australia, the United States, and the United Kingdom (Butler et al., 2006; Edwards & Potter, 2004; Hurley & Dunne, 1991; Liebling, Durie, Stiles, & Tait 2005). However, it is unclear whether such findings are reflective of the experiences of older prisoners, given that the above studies were conducted in the general prison population.

The reasons underpinning the higher levels of psychological distress among imprisoned populations have been the subject of much debate, particularly among criminologists and sociologists (Bonta & Gendreau, 1990). Initial theories regarding the impact of imprisonment were based on a deprivation model, which described the various "structural deprivations" inherent in the imprisonment experience, including the loss of liberty, deprivation of goods and services, frustration of sexual desire, and deprivation of autonomy and security (Sykes, 1958). Exposure to these chronic deprivations was thought to account for the high levels of prisoner distress observed.

Later research disputed the long-held belief that prisons were inherently destructive environments, citing the fact that not all individuals experienced psychological deterioration during imprisonment (Bonta & Gendreau, 1990; Bukstel & Kilmann, 1980). An alternative importation model of prisoner adjustment suggested that the risk and resilience of individual prisoners accounted for their differential response to incarceration, including the risk of negative outcomes such as distress, self-harm and suicide attempts. Imported vulnerability includes such factors as a history of mental illness, suicide attempts, receiving psychological help and substance abuse, and also individual coping styles and abilities (Liebling, Durie, Stiles, & Tait, 2005; Porporino & Zamble, 1984).

Finally, a combined model, in which prisons are understood to expose vulnerable populations to additional risk, has gained increasing support (Hochstetler, Murphy, & Simons, 2004; Liebling, Durie, Stiles, & Tait, 2005; Toch, 1977; Wright, 1991). Female gender, lower educational attainment, being early in the custodial sentence, and being a first-time prisoner have also been implicated as factors associated with greater psychological distress among incarcerated populations (Butler, Allnutt, Kariminia, & Cain, 2007; Edwards & Potter, 2004; Liebling, Durie, Stiles, & Tait, 2005). Wright (1991) extends this concept, arguing that in addition to individual and environmental factors, the congruence between the person and environment should also be taken into account in understanding individuals' experience of incarceration. This is particularly pertinent in relation to older inmates, for whom prison (including the built environment, regimes and programming) has been suggested as being largely unsuitable (Aday, 2003; Crawley, 2005; Wahidin, 2004).

METHODS

The review involved a search of English language articles located through online criminology, psychology, and social work databases: Criminal Justice Abstracts, CINCH (Australian criminology database), International Bibliography of the Social Sciences, ProQuest Criminal Justice, PsychInfo, Ovid MEDLINE, and Social Services Abstracts. Keyword search items included combinations of the terms *prison/inmate, older/aging/ageing/elderly*, and

TABLE 1 Characteristics of Studies of Distress Among Older Prisoners

Author(s) and year	Country	Age	Sample size	Participant gender(s)	Methods	Measure(s) of distress	Key results
Aday (1994)	United States		25	Male	Qualitative		Distress related to separation from family, stigma of crime, shock of imprisonment, shame, death of family/friends, fear of health declines and death, healthcare access and lack of stimulation.
Aday and Farney (2014), Aday and Krabill (2011)	United States	50+	327	Female	Mixed	Modified version of Hopkins Symptom Checklist (HSCL)	HSCL – High/severe levels of depression in 46% of participants; high/severe levels of anxiety in 43% of participants.
Allen, Phillips, Roff, Cavanaugh, and Day (2008)	United States	50+	73	Male	Quantitative	Brief Symptom Inventory (BSI)	BSI: Subscale mean values: Depression ($M = 4.01/20$), Anxiety ($M = 3.66/24$). Better self-reported health associated with less anxiety and depression. Positive religious coping and feeling abandoned by God associated with greater depression.
Allen, Harris, Crowther et al. (2013)	United States	45+	94	Male	Quantitative	Centre for Epidemiological Studies Depression Scale (CES-D)	CES-D - Older inmates and those reporting greater levels of positive religious coping endorsed fewer symptoms of depression. Those who reported greater levels of negative religious coping endorsed more depressive symptoms.
Alvey (2013)	Ireland	50+	14	Male	Qualitative		Study identified distress relating to health declines and fear of death, family issues (e.g., separation or breakdown),
Burling (1999)	United States	55+	88	Male	Mixed	Geriatric Depression Scale (GDS), BSI	GDS: $M = 8.2$. Over half (65.5%) scored within normal range (0–10), 28.7% had mild (11–20), and 6.7% moderate-severe depressive symptoms (21–30). BSI: subscale mean values for older prisoners higher than non-patient norms: Depression ($M = 61.1$), (Norm = 54); Anxiety ($M = 57.1$), (Norm = 53). Older prisoners had a higher Global Severity Index than non-patient population mean values (62.1 vs 53). Positive correlations between distress

(*Continued*)

TABLE 1 Continued

Author(s) and year	Country	Age	Sample size	Participant gender(s)	Methods	Measure(s) of distress	Key results
							(somatic subscale) and various measures of healthcare utilisation.
Crawley and Sparks (2005,2006)	England and Wales	65+	80	Male	Qualitative		Distress relating to prison entry shock, coping with prison regimes, health declines and fear of dying in prison, family issues (e.g., loss of contact), "spoiled" identity and release/resettlement fears (e.g., victimization). Heterogeneity in coping identified.
Dawes (2009)	Australia	50+	14	Male	Qualitative		Distress relating to coping with prison regimes (including lack of stimulation) and built environment issues, access to healthcare and social supports, and concerns regarding release.
Gallagher (1988)	Canada	45+	48	Male	Mixed	Adapted version of Omnibus Stress Scale (OSS)	OSS - Older prisoners had lower mean distress scores ($M = 2.1$) than younger prisoners ($M = 2.5$), but differences were not statistically significant. Total number of health problems, loneliness, and stress associated with mental distress in older prisoners.
Hayes et al. (2012)	United States	50+	262	Male	Quantitative	Camberwell Assessment of Need Forensic Short Version (CANFOR-S)	CANFOR-S - Statistically significant difference observed in level of support needed for psychological distress between prisoners aged 50–54 years (higher) compared to those aged 65–69 years (lower).
Koenig (1995)	United States	50+	95	Male	Quantitative	CES-D	CES-D: 24% of inmates scored in clinically depressed range (>15). Religious affiliation of prisoner and caretaker who had raised them, and frequent attendance at religious services (>weekly) were associated with lower depression scores.
Kopera-Frye, et al. (2013)	United States	50+	111	Male	Mixed	BSI-18	BSI-18: Mean subscale values for veteran and non-veteran older prisoners within normal range, suggesting mild symptomology:

							Depression ($M = 9.86$–9.88), Anxiety ($M = 7.72$–8.21), Somatic ($M = 9.38$–10.58). No significant differences between veterans and non-veterans.
Kratcoski and Babb (1990)	United States	50+	442	Both	Mixed		Distress relating to built environment issues (e.g., temperature, ventilation), social issues (e.g., interactions with younger prisoners), fear of victimization for some (e.g., females), health and mental health issues.
Loeb and Steffensmeier (2011)	England and Wales	50+	42	Male	Qualitative		Distress relating to healthcare access, built environment issues (e.g., temperature, ventilation), diet management, interactions with younger prisoners and staff.
Mann (2012)	England and Wales	55+	40	Male	Qualitative		Distress relating to physical and functional health declines, built environment issues, coping with prison regimes (including lack of stimulation), issues with healthcare access and quality, difficulties maintaining contact with family, and fears about release and resettlement.
Maschi and Baer (2013)	United States	50+	667	Male	Quantitative	BSI	BSI: Mean subscale values of three groups of older prisoners defined by latent class analysis of responses to World Assumptions Scale. BSI subscale mean values: Depression ($M = 0.554$–2.231), Anxiety ($M = 0.380$–1.840), Hostility ($M = 0.316$–1.369), Paranoia ($M = 0.850$–2.271)
Maschi, Morgen, Zgoba, Courtney, and Ristow (2011)	United States	55+	334	Male	Quantitative	Life Stressor Checklist-Revised (LSC-R)	LSC–R - Subjective distress associated with prison stress ($M = 3.7/5$), rated among the most distressing traumatic and stressful life events. Age had a significant inverse relationship to subjective traumatic and stressful life events.
Murdoch, Morris and Holmes (2008)	England and Wales	55+	121	Male	Quantitative	GDS	GDS: Mean score = 10.9. Around one half (49%) of prisoners scored below the threshold for depression (≤ 10), 48% scored in the mild depression range (11–20) and 3% scored in the severe depression range (≥ 20). Depressive symptoms were associated with advancing age, ill health, reduced cognitive function and history of psychiatric illness.

(*Continued*)

TABLE 1 Continued

Author(s) and year	Country	Age	Sample size	Participant gender(s)	Methods	Measure(s) of distress	Key results
Phillips (1996)	England and Wales	55+	6	Unspecified	Qualitative		Distress relating to fear of victimization, health issues, social isolation, built environment issues, fears about release and resettlement (e.g., finances and victimisation),
Phillips, Allen, Salekin, and Cavanaugh (2009)	United States	50+	73	Male	Quantitative	BSI	BSI: Mean subscale values by lifer/non-lifer status: Depression ($M = 3.39$–4.40), Anxiety ($M = 3.18$–3.96). Slightly higher values for lifers (life sentence or sentence ending after age 75), but overall no significant differences observed between lifers and non-lifers.
Shantz and Frigon (2009)	Canada	50+	14	Female	Qualitative		Distress relating to physical and mental health issues and declines, healthcare access, resettlement issues (e.g., health and financial)
Teller and Howell (1981)	United States	50+	92	Male	Quantitative	Bipolar Psychological Inventory (BPI)	BPI: Prisoners aged 50 years and older scored lower than younger prisoners on 9 of 15 BPI subscales, were significantly less likely to experience psychic pain ($p < .001$), and were less depressed than younger prisoners.
Vega and Silverman (1988)	United States	63+	40	Male	Mixed	State-Trait Personality Inventory (STPI)	STPI: No significant differences between older and younger prisoners on measures of anxiety and anger. Older prisoners had significantly higher scores than standardization samples on state scales relating to anxiety and anger, and trait scales relating to anxiety.
Wahidin (2004)	England and Wales	50+	35	Female	Qualitative		Distress relating to prison entry shock, physical and mental health issues, healthcare access, limited programming, prison regimes and environment, social concerns (e.g., interactions with younger prisoners and staff, fear of victimization separation from family)

distress/stress. The following criteria were used to guide article selection for the review: (a) empirical research (both qualitative and quantitative studies were included); (b) PhD theses, books, or articles (in an English language peer-reviewed journal) published between 1974 and 2014; (c) articles reporting on research which includes a sample of older prisoners aged 45 years or older; and (d) description of levels of distress among older prisoners and/or factors associated with distress among this group.

Given that the review focuses on psychological distress, studies only reporting on specific mental illness diagnoses among older prisoners were excluded.

The Studies

A total of 24 original research articles and theses were located which met the search criteria. The literature was published between 1981 and 2013, with the majority (17/24) published since 2000. Over one half of the studies originated from the United States (14/24), and the majority (19/24) concerned older male prisoners only (three studies focused on older female prisoners, one study included both male and female participants, and one study did not specify the gender of older prisoners). The definition of older prisoners ranged from 45 years and older to 65 years and older, however the most common age thresholds adopted were 50 (13/24) or 55 years and older (five/24). Qualitative (10/24) research designs, primarily comprising in-depth semi-structured interviews with older prisoners, were relatively common among the located studies. The quantitative (nine/24) and mixed method studies (five/24) consisted of structured or semistructured interviews, most of which used standardized instruments relating to psychological distress, such as the Brief Symptom Inventory (five studies), Geriatric Depression Scale (two studies), or other scales. Table 1 below summarizes the research studies.

LITERATURE REVIEW FINDINGS

Level of Psychological Distress

A total of 14 studies were located that used measures relating to levels of psychological distress with non-probability samples of older prisoners (e.g., Brief Symptom Inventory, Geriatric Depression Scale, and various measures of stress, anxiety, and depression). However, only eight of these papers reported findings relating to distress and provided some context to these results (e.g., comparison to younger prisoners or community norms). Only one study (Aday & Farney, 2014) included older female prisoners, all but one were carried out in North America (United States and Canada), and two comprised PhD theses. A range of assessment instruments were used

in the papers, and findings were sometimes reported differently even between studies adopting the same instruments. It is therefore inappropriate to compare results between studies; however the relative level of psychological distress within each study's sample can be examined.

Comparison to younger prisoners

There was some variability between the three studies analyzing the relative level of psychological distress of older and younger male prisoners. One study concluded that older prisoners were slightly less distressed and/or better adjusted than the younger prisoners surveyed (Teller & Howell, 1981), whereas two others reported no significant differences between older and younger prisoners on measures of anxiety and anger (Vega & Silverman, 1988) or mental distress (Gallagher, 1988). Based on 40 individual interviews, Vega and Silverman (1988, p. 153) proposed that older male prisoners "create a façade of adjustment," making them appear to be faring well, while experiencing similar emotional reactions to younger inmates, as measured with quantitative instruments. Similarly, Gallagher (1988) found that although older prisoners identified fewer sources of stress than younger prisoners this did not translate to a statistically significant difference in distress levels (as measured by an adapted version of the Omnibus Distress Scale).

Although Gallagher (1988) described "total stress scores" of older prisoners (45 years and older) as significantly lower than those of younger prisoners (30 years and under), the measure adopted was a checklist of potential sources of stress identified from the literature, including items such as stress associated with loss of freedom or harassment from staff. When this same group of participants was asked to indicate "what sorts of things bother them in prison," the difference between younger and older prisoners in the rate of reporting stressors was negligible, perhaps indicating that the items included in the checklist did not adequately describe the stressors faced by older prisoners. In contrast to these two studies, Teller and Howell (1981) suggested that older inmates were better adjusted to prison than younger inmates (experiencing less psychic pain and less depression), following assessment using the Bipolar Psychological Inventory (BPI) of a sample of 92 older and 539 younger male prisoners.

Comparison To Community Norms

A total of five studies provided some comment as to the relative level of psychological distress or related symptoms among older prisoners compared to community norms. Two studies used the Geriatric Depression Scale (GDS) to examine distress among older male prisoners. These studies found mean GDS scores of 8.2 and 10.9 and reported that between 35% (Burling, 1999)

and 51% (Murdoch, Morris, & Holmes, 2008) of participants experienced mild to severe depressive symptoms.

Both studies indicated that the rates of depressive symptoms observed among older prisoners (aged 55 years and older) were higher than community norms, and cited papers reporting between 32% and 35% of older people in the community screened positive for depressive symptoms using the GDS (D'Ath, Katona, Mullan, Evans, & Katona, 1994; Parmalee, Lawton, & Katz, 1989). However articles citing community norms used samples including high proportions of females, and people aged 75 years and older (compared to prisoner samples), and one included older people in residential aged care—all groups anticipated to display higher levels of psychological distress. Given the lack of standardization for age, gender, and other factors, the rates of depressive symptoms in the older prisoner samples are likely to be much higher than expected in community-dwelling older people. The findings of these studies are similar to a study of older female prisoners by Aday and colleagues (Aday & Farney, 2014), which found that over one third of older female prisoners displayed high to severe levels of depression (46%) and anxiety (43%), using a modified version of the Hopkins Symptom Checklist.

In contrast, using the Brief Symptom Inventory (BSI-18) Kopera-Frye et al. (2013) compared older war veteran and non-veteran prisoners who were residing in a structured living program for older prisoners in the United States. No significant differences emerged between veteran and nonveteran older prisoners. The authors concluded that the sample had BSI-18 scores that fell within a "normal" range (e.g., depression, $M = 9.86$–9.88; anxiety $= 7.72$–8.21), suggesting only a mild degree of anxiety, depression, and somatic symptoms. However, it is unclear whether the normative ranges referenced were standardized for age and gender, making it difficult to assess the accuracy of these findings. These results conflicted with Burling's (1999) findings (using the BSI), and another study by Vega and Silverman (1988) (using the State-Trait Personality Inventory), which both concluded that the psychological wellbeing of older prisoners was moderately worse than community norms. Although this may indicate some impact of the structured living program in which the prisoners in the first study resided, a comparison group of older prisoners residing in general prison units was not included to investigate this possibility.

Overall, the available research suggests the level of psychological distress experienced by older prisoners is similar or slightly lower than that of younger prisoners, and is likely to be moderately worse than indicated by community norms of older people. At the same time, the available studies are limited in that they have exclusively originated from North America, and most are dated. In addition, the studies use nonprobability samples, they largely neglect to take into account other confounding factors such as time spent in prison, time remaining to serve and previous imprisonments, and

few have included older female prisoners. Finally, it is unclear whether some of the instruments used have been validated with older populations, and comparison to community norms generally lacks standardization for factors such as age and gender.

Factors Associated With Psychological Distress

Examination of the located studies revealed four broad groups of factors that appear to be related to psychological distress among older prisoners: personal and demographic factors, sentence characteristics, prison factors, and social factors.

Personal and demographic factors

Although older prisoners are generally presented as a single group in the reporting of research findings, age among older prisoners may itself be a factor associated with psychological distress. Hayes et al. (2012) noted that male prisoners aged 50–54 years in the United States needed more support for psychological distress compared to those aged 65 years and older, as assessed using the Camberwell Assessment of Need Forensic Short Version (CANFOR-S). This finding conflicted with U.K. research by Murdoch, Morris, and Holmes (2008), which found a small but significant positive correlation between age and depressive symptoms (as measured by the Geriatric Depression Scale) in 121 life-sentenced male prisoners aged 55 years and older. This second study also found that higher cognitive function and greater levels of education were associated with lower depression scores, however the effect of education was mediated by health factors (i.e., older prisoners with lower educational levels were also found to have poorer health; Murdoch, Morris, & Holmes, 2008). The conflicting findings of these studies perhaps indicate that although older prisoners potentially experience more distress with age, they may be less in need of support in managing these symptoms. Alternatively, the findings could point to differences in patterns of distress between life-sentenced and nonlife-sentenced older prisoners.

Research from the United States and the United Kingdom found that between 85% and 93% of older prisoners have health issues (particularly chronic cardiovascular, musculoskeletal and respiratory conditions); a higher prevalence than both younger prisoners and their counterparts in the general population (Aday & Farney, 2014; Fazel, Hope, O'Donnell, Piper, & Jacoby, 2001; Hayes et al., 2012). Both chronic health issues and a history of mental health problems were significantly associated with more depressive symptoms among the older prisoners in a U.K. study (Murdoch, Morris, & Holmes, 2008). Positive associations between poorer health status (measured by number of health problems or higher healthcare utilization) and higher scores on distress scales among older prisoners have also been found in two other

U.S. studies of older male prisoners (Burling, 1999; Gallagher, 1988). This association between health status and distress accords with the qualitative literature which describe difficulties accessing healthcare, worries of physical and mental deterioration rendering dependency, and fears of dying in prison as distressing situations faced by older prisoners (Aday, 1994; Aday & Krabill, 2011; Alvey, 2013; Crawley & Sparks, 2006; Phillips, 1996; Wahidin, 2004).

Research has also investigated the impact of being a first-time prisoner at an older age. Qualitative studies report that for older prisoners who encounter prison for the first time in later life, imprisonment often constitutes "nothing short of a disaster, a catastrophe" (Crawley & Sparks, 2005, p. 347). Associated with this is the concept of a "spoiled identity," entailing the loss of status and respectability, with little opportunity remaining for reclaiming social standing (Aday, 1994; Crawley & Sparks, 2005). Conversely, a quantitative study by Teller and Howell (1981) found that although better adjustment characterized first-time older prisoners, those who had experienced multiple imprisonments adjusted more poorly and bore more resemblance to the younger prisoners surveyed when measured by the Bipolar Psychological Inventory. Disagreements between these studies perhaps reflect fluctuations in distress and coping levels throughout the sentence of first-time older prisoners or potentially real differences in the experiences of older prisoners over the lengthy period between these studies.

Finally, the research suggests that individual differences in attitude and coping account for some variations in distress among older prisoners. Various coping strategies uised by older prisoners have been described in the qualitative literature, including withdrawal and "making oneself invisible," "attempts at mastery" including denial, reframing the imprisonment experience, drawing on previous life experiences of surviving adversity, pragmatism, and acceptance (Aday, 1994; Crawley & Sparks, 2005; Mann, 2012; Wahidin, 2004). Similarly, Maschi and Baer (2013) found that older prisoners' basic assumptions and world views were related to symptoms of depression, anxiety, hostility, and paranoia. Additionly, quantitative studies suggest that aspects of religiousness or spirituality may be associated with better emotional health among older male prisoners, including the number and frequency of spiritual practices and not feeling abandoned by God (Allen, Phillips, Roff, Cavanaugh, & Day, 2008; Koenig, 1995).

Sentence factors

As with prisoners in general (Liebling, Durie, Stiles, & Tait, 2005; Porporino & Zamble, 1984), the qualitative literature describes the initial period of imprisonment as a particularly distressing time for older inmates, often constituting a total shock, accompanied by a sense of the surreal or being caught in a nightmare, particularly for first-time prisoners (Aday, 1994; Crawley & Sparks, 2005; Wahidin, 2004). In addition to heightened anxieties during

prison entry, various concerns of older prisoners preparing for release have been described, including financial insecurities, fear of family rejection, and worries about not coping or of being victimized postrelease (Aday, 1994; Crawley & Sparks, 2006; Mann, 2012; Phillips, 1996). Although the qualitative literature describes both the entry and release phases of imprisonment as times of heightened distress, there is limited quantitative evidence to evaluate whether these are ubiquitous experiences of older prisoners. In addition, one quantitative study suggested that the amount of time spent in prison is unrelated to well-being among older people, though this finding is limited to a single U.S. study (Murdoch, Morris, & Holmes, 2008).

Prison factors

The availability of age-appropriate environments, regimes, activities, and services has often been raised in qualitative studies as crucial for older prisoners' coping with imprisonment (Aday, 1994; Aday & Krabill, 2011; Dawes, 2009; Gallagher, 1988; Wahidin, 2004). However, many correctional environments have been designed with the needs of younger prisoners in mind (Aday, 2003; Crawley, 2005). Qualitative studies from the United States, United Kingdom, and Australia have drawn attention to a lack of appropriate programs and services for older prisoners in a range of areas including accommodation, healthcare, education, work, and exercise (Aday, 2003; Dawes, 2009; Loeb & Steffensmeier, 2011; Mann, 2012; Shantz & Frigon, 2009; Wahidin, 2004). There also appears to be a lack of structure and programs to maintain engagement in daily prison life for prisoners who are past retirement age and no longer wanting to or physically unable to work (Dawes, 2009; Kratcoski & Babb, 1990; Wahidin, 2004). The absence of age-appropriate activities and programs is understood to intensify the multiple losses experienced by virtue of imprisonment (Wahidin, 2004).

Tentative quantitative evidence of this association was found in one study of three U.S. prisons, which found that older inmates who were engaged in more individual hobbies and activities at one prison location had fewer symptoms of psychological distress compared to older prisoners at other locations (Gallagher, 1988). There are a number of other prison-related factors that have been described as distressing for older prisoners, including noise levels, a lack of privacy, and the lack of regime differentiation for older prisoners (Crawley, 2005; Dawes, 2009; Gallagher, 1988; Mann, 2012; Phillips, 1996).

There is also some evidence relating the security rating of institutions to older prisoner distress levels. Kratcoski and Babb (1990) found that older inmates placed in minimum security prisons tended to adjust as well or even better than older prisoners held in facilities specially programmed for older people. Finally, accessibility of prison health and mental health services is raised as a consistent concern in qualitative studies of older prisoners

internationally (Aday, 1994; Dawes, 2009; Mann, 2012; Shantz & Frigon, 2009; Wahidin, 2004). In support of these qualitative findings, Murdoch, Morris, and Holmes (2008) found a positive association between unsatisfactory ratings of prison healthcare and depressive symptoms in older prisoners. However it was unclear if this association was secondary to other factors, such as poorer health status among those who rated prison healthcare as being unsatisfactory.

Social factors

Social interactions within the prison environment have alternately been depicted as distressing and supportive for older prisoners. The literature describes interactions with prison staff (including both officers and health staff) as frequently distressing for older prisoners (Crawley & Sparks, 2005; Gallagher, 1988; Loeb & Steffensmeier, 2011; Mann, 2012). This includes infantilizing, unresponsive, disrespectful, and degrading interactions that conflict with older prisoners' sense of "place within the generational order" (Wahidin, 2004, p. 169). At the same time, some research describes positive relationships between older prisoners and prison staff (e.g., older prisoners feeling treated with respect by staff and feeling that there was a staff member who they could turn to with a problem; Gallagher, 1988).

Interactions with younger prisoners are commonly described as a source of distress for older inmates and are often characterized by a fear of victimization, particularly for older prisoners experiencing declines in physical functioning (Aday, 2003; Dawes, 2009; Gallagher, 1988; Kratcoski & Babb, 1990; Mann, 2012; Vega & Silverman, 1988; Wahidin, 2004). Psychological victimization by younger prisoners (such as insults, threats, fake punches, and cutting in while in queues) and property victimization (Dawes, 2009; Kerbs & Jolley, 2007), appear relatively common. Physical and sexual abuse have also been reported toward older prisoners, albeit less frequently (Aday, 1994, 2003; Kerbs & Jolley, 2007). There is qualitative evidence that fear of such victimization limits the level of social engagement of older prisoners, contributing to experiences of isolation (Dawes, 2009; Wahidin, 2004).

The limited literature pertaining to older females suggests that they are more likely to be socially isolated in prison; however, there are inconsistent findings relating to the relative levels of fear of victimization among older male and female prisoners (Aday, 2003; Kratcoski & Babb, 1990). Researchers have concluded that "Older and more frail inmates may devote a substantial portion of their day-to-day existence trying to minimise the dangers of imprisonment" (Aday & Krabill, 2012, p. 213). Naturally, some studies have found that older prisoners prefer age-segregated placement in prison provided this does not prevent access to other facilities and services (Wahidin, 2004). Qualitative studies indicate that social support within prison also serves as a protective factor for older inmates, particularly in the context of

disruption to their relationships outside of prison, and the lowly position in the prison social hierarchy occupied by many older inmates (Aday, 1994; Mann, 2012; Wahidin, 2004). In the absence of a supportive social milieu, isolation poses significant difficulties for some older prisoners (Aday, 1994; Crawley, 2005), and the accompanying loneliness has been found to be significantly associated with psychological distress among older prisoners (Gallagher, 1988).

While coping with changes in social relationships with family and friends outside of prison may pose a challenge to all prisoners, there are unique difficulties in this area for older inmates (Aday, 1994, 2003; Aday & Krabill, 2011; Alvey, 2013). Separation from family, particularly where older prisoners have occupied caregiving roles or have been in long-term partnerships, is often pointed to as a distressing experience, as is the difficulty of coping with death among family and friends outside prison (Aday 1994; Aday & Krabill, 2011; Crawley & Sparks, 2006; Wahidin, 2004). Finally, changes in family and community social network circumstances, including as a result of offending within the family context, is described as a considerable source of grief in the qualitative literature concerning older prisoners (Aday, 1994; Alvey, 2013; Crawley & Sparks, 2006; Shantz & Frigon, 2009).

DISCUSSION

A growing body of literature, primarily originating in the United States, England, and Wales has shone a light on the experiences of older inmates (Aday, 2003; Wahidin, 2004; Wahidin & Aday, 2005). Qualitative studies paint a picture of a largely vulnerable, marginalized, and systematically overlooked older prisoner population. It is commonly understood that prisons are primarily designed for the young and able-bodied, who comprise the majority of inmates (Aday, 2003; Crawley, 2005). As a result, research findings suggest that prison environments generally cater poorly for the variety and complexity of needs of older prisoners, including their physical and mental health issues as well as programming, safety, and reintegration needs (Aday, 2003; Crawley, 2005; Wahidin, 2004). This mismatch between the older prisoner and the correctional environment has been suggested to arise out of an "institutional thoughtlessness," rather than any deliberate attempt to punish or ignore the older prisoner (Crawley, 2005). As Wahidin (2004, p. 166) describes, older inmates often find themselves "in the direct path of the operational needs of the prison machine, which fails to respond to difference, need and ability." Nonetheless, this situation has been suggested by some as constituting a double-punishment of the older inmate who must ultimately cope in an environment which may be inherently unsuited to their needs and life stage.

This review located a limited body of qualitative and quantitative evidence which specifically examined psychological distress among older prisoners, and the factors associated with this. Findings suggest that older prisoners likely experience levels of psychological distress which are similar to that of younger prisoners and greater than that of older people in the general community. At the same time, the quantitative evidence is mainly derived from studies of older male prisoners and largely originates from North America, limiting its generalizability due to substantial differences between correctional systems internationally.

The review found a small body of literature concerning the factors associated with psychological distress among older prisoners. Further investigation could attempt to understand the relative contribution of these factors upon psychological distress among older prisoners, including physical and mental health issues, access to appropriate healthcare, experiences of victimization, issues of the prison environment, social relationships and prison programs. Future research with contemporary samples of older prisoners, including females, and examining a variety of prison environments (e.g., security ratings), would be useful in this respect. Although there is an absence of quantitative studies examining gender differences in psychological distress among older prisoners, findings relating to the poor health and physical functioning of older females in prison, alongside detailed qualitative studies describing the impact of imprisonment upon this group suggest that further analysis of gender differences in distress among older prisoners is needed (Krabill & Aday, 2005; Wahidin, 2004; Williams et al., 2006). Older war veterans form another subgroup who warrant further investigation, particularly any association between distress and coping experiences and previous military service or training.

The health and psychosocial nature of many of the factors which appear to be associated with distress among older inmates suggests a role for forensic social work in examining and addressing these issues. Overall, the review supports the usefulness of adopting an interactive model in examining psychological distress among older prisoners (Wright, 1991). Older prisoners may enter correctional systems with certain vulnerabilities, such as physical and mental health issues, or may develop these throughout the course of their imprisonment. However the extent to which prisons provide a physical and social environment suited to the needs of older prisoners may impact upon the level of distress experienced. Contemporary research is needed to address the research gaps identified and to provide current evidence as to the levels, drivers, and potential solutions of distress among older prisoners.

CONCLUSION

An historical body of research demonstrates the heavy burden of psychological distress among prisoners. Although individual, situational,

and environmental factors impacting upon prisoner distress have been broadly explored, there is little empirical data examining this phenomenon among older prisoner populations. This issue warrants further investigation given that older inmates are the fastest growing segment of the prison population, and it remains unclear how relevant current models of distress are to the older prisoner group, who appear to represent a marginalized minority of the inmate population.

The small body of literature points to significant physical, mental, and social concerns of older prisoner populations internationally, as well as barriers to safe and purposeful participation in the prison institution. Given the potential for distress to have such significant impacts upon older people in prison (including in their social, mental, and physical functioning), and the associated impact on the functioning and cost of correctional services, there is a clear argument for further empirical analysis of the factors associated with distress among older prisoners. Research pertaining to older people in the community has demonstrated that distress among older people is not an inevitable consequence of ageing, and there is significant potential for interventions to ameliorate such experiences. Such findings will have implications for various areas of corrections, including accommodation, programming and healthcare services.

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