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Can a Case be Made for Developing Specialist Forensic Geriatric Psychiatry Services?

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Abstract: The proportion of elderly in the general population is increasing worldwide. Although society may view elderly offenders leniently, crimes rates among the elderly are increasing in several countries. Elderly offenders have a high prevelance of psychiatric morbidity, which is often undetected and untreated. A number of potential risk factors are identified from the literatutre. Specialist tertiary forensic geriatric psychiatry services are suggested to meet the psychiatric needs of this very vulnerable group of patients.

INTRODUCTION

Traditionally, crime rates in elderly were thought to be very low (Taylor and Parrot, 1988; Barak *et al.*, 1995; Jacoby, 1997). Crime committed by the elderly may not be detected or reported and there may reluctance to prosecute the elderly (Lynch, 1988; Needham-Bennett *et al.*, 1996; Nnatu *et al.*, 2005).

WHY IS THE REPORTED CRIME RATES LOW IN THE ELDERLY?

Society may view elderly offenders leniently, particularly if they are unwell (Lynch, 1988; Kratcoski, 1990; Needham-Bennett et al., 1996; Nnatu et al., 2005); although this may be unlikely for more serious crimes (Kratcoski, 1990). The police or the public prosecutor may not take further action if there is denial of intent and unclear or unreliable admission of the alleged offence, or if there is evidence of mental illness (Needham-Bennett et al., 1996). The police may serve a caution rather than prosecute based on their perception of the attitude of the alleged offender and if there is no previous offending history (Needham-Bennett et al., 1996). Furthermore, families may chose to hide deviant behaviour conducted by the elderly (Amir and Bergman, 1973). Nevertheless, the low reported crime rate in the elderly may also be genuine because: physical change may prevent involvement in activities demanding stamina and physical effort; passivity, rigidity, inertia and conservatism may inhibit risk-taking behaviour; and, withdrawal from social contact may reduce temptation and opportunity to commit crime (Amir and Bergman, 1973).

ARE CRIME RATES INCREASING IN THE ELDERLY?

The mean age of federal prisoners in the United States (US) is increasing (Koenig et al., 1995). The number of

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convictions and the proportion of total criminal activity has increased among those aged 60 years and older in England in recent years (Fazel and Jacoby, 2002). The proportion of those aged 60 years and over in prisons increased from 1.3% to 2.4% between 1992 and 2002 in England (Home Office, 2002); this included an increase in sex offenders from 25.9% to 38.1% between 1990 and 1999 (Home Office, 2000). These figures are increasing more rapidly than those for the general prison population (Tomar *et al.*, 2005). A similar trends has been observed in the US and Canada (Fazel *et al.*, 2001a; Fazel and Grann, 2002).

HOW COMMON ARE MENTAL DISORDERS IN ELDERLY OFFENDERS?

Studies of psychiatric disorders among elderly offenders have emerged from several countries including England and Wales, United States, Canada, Sweden and Israel in a range of settings. The offences or alleged offences studied include fatal and non-fatal violent offences, arson, sexual offences, acquisitive offences (e.g. theft), damage to property, drug and alcohol-related offences, and driving offences. In some studies cited below, because of comorbid psychiatric disorders, some individuals had more than one diagnosis.

1. Offenders in the Community

The prevalence of psychiatric disorders among alleged offenders aged 60 years and over in the community in an English county was 28% (Needham-Bennett *et al.*, 1996); the prevalence of psychiatric disorders in a sub-sample of shop-lifters was 38%, with depression and organic brain syndromes being the most prevalent diagnosis. In the same study, 77% of those with psychiatric disorder were shop-lifters - most had history of previous offending.

2. Offenders Referred for Forensic Psychiatric Evaluation by the Courts and Other Sources

The prevalence of psychiatric disorders among first-time offenders aged 65 years and over, referred for forensic psychiatry evaluation, in Israel was 50% (Barak *et al.*, 1995); the most prevalent diagnosis were dementia (21%) and personality disorders (18%). The prevalence of psychiatric

disorders in another Israeli of those aged 60 years and over, referred for forensic psychiatry evaluation, was 88%; the most prevalent diagnosis were dementia (30%), functional psychosis including schizophrenia, depression and paranoid states (25%) and personality disorders (28%) (Heinik et al., 1994). In the same study, sex offenders were more likely to have dementia (29%) and financial offenders were more likely to have personality disorders (38%) (Heinik et al., 1994). The prevalence of psychiatric disorders among alleged offenders aged 62 years and over, referred for forensic psychiatric evaluation, in the US, was 83% (Rosner et al., 1991); the most prevalent diagnosis were schizophrenia (21%), alcoholism (21%), dementia (19%) and personality disorders (19%). The prevalence of psychiatric disorders among alleged offenders aged 65 years and over, referred for a forensic psychiatry evaluation, in England was 44% (Curtice et al., 2003); the most prevalent diagnosis were dementia (19%), chronic paranoid schizophrenia (6%), depression (6%), schizoaffective disorder (3%), organic personality disorder (post stroke) (3%), mild learning disability (3%) and alcohol misuse (3%). In the same study, 33% of sex offenders had a diagnosis of mental disorder, with dementia (17%) being the most prevalent diagnosis. In another English study, the prevalence of psychiatric disorders among alleged offenders aged 65 years and over, referred for forensic psychiatry evaluation, was 69% (Tomar et al., 2006); the most prevalent diagnosis were schizophrenia (21%), organic disorders (21%), affective disorders (19%) and personality disorders (7%). In the same study, the most prevalent diagnosis in those charged with homicide were scihzophrenia (54%), organic brain disorders including dementia (27%) and depression (9%). The prevalence of psychiatric disorders in those aged 60 years and over, referred for forensic psychiatric evaluation, in Sweden, was 97% (Fazel and Grann, 2002); the most prevalent diagnosis were dementia (7%), schizophrenia (7%), affective psychosis (6.7%), other psychosis (11.4%), personality disorders (19.4%) and alcohol/drug abuse/dependence (15%). Similar figures were observed in an additional analysis of those aged 65 years and over.

3. Prisoners

The prevalence of psychiatric disorders among custodially remanded male prisoners, aged 55 years and over, in an English prison was 50% (Taylor and Parrott, 1988); the most prevalent diagnosis were affective psychosis (37%) and alcoholism (27%). The prevalence of psychiatric disorders among sentenced male prisoners, aged 60 years and over, in England and Wales was 53% (Fazel et al., 2001a); the most prevalent diagnosis were depression (30%), personality disorder (30%), current alcohol/substance misuse/dependence (5%) and dementia (1%). Comorbid personality disorder and mental illness was observed in 9%, and comorbid alcohol/substance misuse/dependence and mental illness was observed in 5% (Fazel et al., 2001a). The most prevalent personality disorders were: mixed (7%); schizoid (6%); antisocial (8%); obsessive (8%); and, avoidant (8%) (Fazel et al., 2001a). In the same study, the most prevalent diagnosis in a sub-sample of 101 sex offenders were: psychotic illness (6%); depression (7%); personality disorders (33%); and, dementia (1%). Also, sex offenders, compared to other offenders, had lower pre-valence of substance use disorders, antisocial personality traits, higher prevalence of schizoid, obessive-compulsive and avoidant personality traits, and lower IQ (Fazel *et al.*, 2002). The prevalence of psychiatric disorders among males prisoners, aged 50 years and over, in an American federal prison was 54% (Koenig *et al.*, 1995); the most prevalent diagnosis depressive illness (36%), simple phobias (31%) and anxiety disorders (4.2%).

4. Forensic Psychiatry Inpatients

The most prevalent psychiatric disorders among those aged 60 years and over in an English high secure forensic psychiatry hospital were organic syndrome (14%) and schizophrenia and related psychosis (78%) (Wong and Fenwick, 1995). Not surprisingly, all 11 patients, with a median age of 66 years, referred from medium and high secure forensic psychiatry inpatient units in England to a specialist geriatric forensic psychiatry liaison service has mental disorder (Shah, 2006); the most prevalent were schizophrenia (82%), depression (9%) and mania (9%), and after assessments by the specialist geriatric forensic psychiatry liaison service diagnosis of dementia (27%) and delirium (9%) were added. The most prevalent psychiatric disorders among those aged 60 years and over, admitted to medium and high secure forensic psychiatry units, in England were schizophrenia (33%), delusional disorder (29%), depression (42%), alcohol dependence/abuse (29%) and organic brain syndrome (33%) (Coid et al., 2002); substance dependence/abuse was absent.

5. Geriatric Psychiatry Inpatients

All patients attempting homicide or committing homicide in a geriaric psychiatry unit had psychiatric disorders (Ticehurst *et al.*, 1992). The most prevalent diagnosis was dementia (58%); and, 84% had cognitive impairment and 50% had delusional beliefs (Ticehurst *et al.*, 1992).

Direct comparisons between studies are problematic because of differing samples, clinical or societal settings, offences, definitions of older age groups (varying cut-off ages between 45 and 65 years have been used), methods of case-ascertainment and study designs. Also, some studies were retrospective and others were confined to males. Nevertheless, in general, the prevalence of psychiatric disorders among elderly offenders was higher than in population-based epidemiological studies.

DEMOGRAPHY, CORRELATES AND POTENTIAL RISK FACTORS

1. Demography

Some studies only examined males (Taylor and Parrott, 1988; Gallagher, 1990; Koenig *et al.*, 1995; Fazel *et al.*, 2001a, 2002). Only few studies specifically examined gender differences between offenders with and without psychiatric disorders. Male offenders were more likely to have psychiatric diagnosis, but female offenders were more likely to have a psychotic illness (Heinik *et al.*, 1994). There was no gender difference between offenders with and without psychiatric diagnosis in a community sample (Needham *et al.*, 1996).

The prevalence of psychiatric disorders was similar in those who had first offended before and after the age of 60 years in an English sample of community offenders (Needham-Bennett et al., 1996) and among referrals for forensic psychiatric evaluation in England (Tomar et al., 2005). Swedish offenders aged 60 years and over, compared to younger offenders, were more likely to have dementia, affective psychosis, cerebral lesions and substance use disorders and less likely to have personality disorders (Fazel and Grann, 2002); similar findings were observed in an additional analysis of those aged 65 years and over.

Levels of psychological distress among Canadian male prisoners were lower in those aged 45 years and older than in younger age groups (Gallagher, 1990). American males prisoners with psychiatric disorders were younger than those without (Koenig et al., 1995). However, the prevalence of psychiatric disorders significantly increased with age among custodially remanded English male prisoners aged 55 years and over (Taylor and Parrott, 1988). Patients aged 60 years and over, compared to younger patients, admitted to forensic psychiatry units in England were more likely to have delusional disorders, depression, organic brain syndrome and schizoid personality disorder and less likely to have schizophrenia, drug dependence/abuse, antisocial personality disorder and borderline personality disorder (Coid et al., 2002).

Elderly offenders with mental disorders were more likely to be national citizens (Fazel and Grann, 2002), commit homicides (Fazel and Grann, 2002), commit sex offences (Fazel and Grann) and be social isolated (Koenig et al., 1995).

2. Past Psychiatric History

The life-time prevalence of psychiatric disorders among elderly American prisoners was 86% (Koenig et al., 1995) and of recorded history of alcohol misuse among elderly English and Welsh prisoners was 11% (Fazel et al., 2001a). American prisoners with psychiatric disorders were more likely to have a past psychiatric history, alcohol abuse and dependence, and substance abuse and dependence (Koenig et al., 1995). Also, 35% of those attempting or committing homicide and with mental disorder had a past history of alcohol misuse (Ticehurst et al., 1992). Shop-lifting was associated with previous history of alcohol misuse (Needhan-Bennett et al., 1988). Depression in sentenced English male prisoners was associated with a past history of depression (Fazel et al., 2001a). In another study the median number of past psychiatric admissions was 2 (Shah, 2006).

3. Physical Illness

Up to 50% of elderly offenders with psychiatric disorders have physical illness (Ticehurst et al., 1992; Barak et al., 1995), have poor subjective health and more physical symptoms (Koenig et al., 1995), particularly if they have depression (Fazel et al., 2001a). Visual impairment, auditory impairment, mobility problems and cognitive impairment are present in up to 21%, 42%, 28% and 22% of elderly offenders with psychiatric disorders respectively (Ticehurst et al., 1992; Curtice et al., 2003).

DO ELDERLY OFFENDERS RECEIVE TREATMENT FOR PSYCHIATRIC DISORDER?

Past and present history of depressive illness was recorded in only 40% of case-notes of depressed prisoners (Fazel et al., 2001a,b). Although 77% of English and Welsh prisoners were receiving some medication for a range of physical and psychiatric disorders, only 18% of currently depressed prisoners were receiving antidepressants (Fazel et al., 2001a, 2004). Only 13% and 18% of prisoners with psychiatric disorder in an American prison received psychotropic drugs and counselling respectively (Rosner et al., 1991). Half of those with a psychiatric diagnosis were receiving psychotropic drugs in a sample of community offenders, but data on the appropriateness of treatment were not reported (Needham-Bennett et al., 1996). There is clear evidence of significant under-recognition and undertreatment of psychiatric morbidity in elderly offenders.

CLINICAL **OUTCOME PSYCHIATRIC** ASSESSMENT

Although older offenders admitted to psychiatric units are likely to receive treatment, there is evidence that forensic psychiatrists have felt a need to request a specialist old age psychiatry opinion (Tomar et al., 2005; Shah, 2006). Perpetrators of homicide or attempted homicides admitted to a geriatric psychiatry unit received neuroleptics, benzodiazepines, antidepressants and electroconvulsive therapy (Ticehurst et al., 1992). The long-term outcome in the same sample was: long-term care in geriatric psychiatry units (42%) or at home (28%), and death (21%).

The police are more likely to refer elderly offenders with psychiatric disorders to welfare agencies (Needham-Bennett et al., 1996). The outcome in those referred for specialist forensic psychiatry evaluation in England included: admission to medium secure forensic psychiatry unit (19%); admission to geriatric psychiatry units (12%); out-patient follow-up (24%), usually for sex offenders and shop-lifters as part of a probation order; simple advice (24%); and, unspecified other forms of advice (21%) (Tomar et al., 2005). The outcome in those referred for a forensic psychiatry evaluation in Israel included: most patients with psychosis were either hospitalised or recommended to receive out-patient treatment; only 59% of those with dementia received further recommendations including admission into hospital or other institutions and out-patient treatment; and, most subjects with personality disorders were not recommended any treatment (Heinik et al., 1994).

LEGAL OUTCOME OF PSYCHIATRIC ASSESS-**MENT**

The outcome among English community offenders included: probation orders (4%); caution (58%); and, no further action (38%) (Needham-Bennett et al., 1996). However, those with psychiatric diagnosis were no more likely to receive these outcomes than those without. The outcome, following forensic psychiatry evaluation, in Israel included: imprisonment (26%); probation orders (23%); and, no sentencing because of medical disabilities (11%) (Barak et al., 1995). The outcome, following forensic psychiatry evaluation, in another Israeli study included: most subjects with personally disorders were considered competent to stand trial, have responsiblity and have competency to be sentenced; the opposite was the case for most subjects with psychosis; and, subjects with younger offenders, receiving forensic psychiatric evaluation were more likely to be declared legally insane (Fazel and Grann, 2002); declaration of legal insanity was more likely in those with dementia and schizophrenia and less likely in those with personality disorders and substance use disorders. Older custodially remanded prisoners in England, compared to younger prisoners, were more likely to receive probation orders, but were no more likely to receive hospital orders (Taylor and Parrott, 1988).

SCALE OF THE PROBLEM

The absolute number of elderly mentally disordered offenders is likely to increase because: the proportion of the elderly in the general population is rapidly increasing worldwide (Shah and MacKenzie, 2007); the number of convictions and the proportion of total criminal activity among the elderly, and the proportion of elderly prisoners is increasing in several countries; and, the prevalence of psychiatric disorders among elderly offenders is significantly higher than in population-based epidemiological studies.

A WAY FORWARD

The potential for a substantive increase in the number of elderly offenders with psychiatric disorders and significant under-recognition and under-treatment of psychiatric morbidity in this group suggests a need for appropriate agesensitive service developments. The existing literature, as described above (in the section on Demography, correlates and potential risk factors), suggests that some elderly offenders groups are at higher risk of psychiatric disorders. Therefore, clinicians working with the elderly in a variety of settings including primary care, geriatric medicine, geriatric psychiatry, forensic psychiatry, prison healthcare and social services, and those working in the criminal justice system and the prison system should maintain a high vigilance when working with the elderly from these groups (Nnatu *et al.*, 2005).

The complex needs of elderly mentally disordered offenders appear to fall within the domains of geriatric psychiatry services and forensic psychiatry services, but they may not be met by either service alone (Yorston, 1999, 2002; Nnatu et al., 2005). Therefore, consideration should be given to setting up specialist tertiary forensic geriatric psychiatry services and models for such services have been described (Yorston, 1999, 2002; Nnatu et al., 2005; Tomar et al., 2005). Such services should be set up at a regional or supraregional level (Yorston, 1999, 2002; Nnatu et al., 2005). They should have a specialist forensic geriatric psychiatry inpatient unit and a community mental health team staffed by a multidisicplinary team with experience of working both in forensic psychiatry and geriatric psychiatry (Yorston, 2002). Many elderly mentally-disordered offenders can be managed in the community or in out-patient settings (Yorston, 2002); the specialist forensic geriatric psychiatry community mental health team can take a lead in caring for such individuals. The specialist forensic geriatric psychiatry service can take a lead: in liaising with the police, probation officers, lawyers, courts and prisons; in liaising with traditional forensic psychiatry services and geriatric psychiatry services; in developing court diversion schemes, which have been successful in younger age groups (Joseph, 1994); and, in developing specialist educational programmes for the police, probation officers, lawyers, court staff, prison staff, and staff working in traditional forensic psychiatry

services and geriatric psychiatry services to raise awareness pertaining to the recognition and treatment of psychiatric disorder in this vulnerable group of patients. Successful individual components of this model include: specialist forensic geriatric psychiatry inpatient units in the private sector (Yorston, 2002); successful collaboration between specialist geriatric psychiatry and forensic psychiatry services through an integrated approach (Curtice *et al.*, 2003); and, a successful model of a specialist geriatric psychiatry liaison service to forensic psychiatry inpatient units (Shah, 2006).

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