

# **Mental Illness, Substance Misuse and Offending**

Dr Jonathan P King

Consultant in Forensic Psychiatry



# Problems

- Definition: what is meant by mental illness, substance misuse and offending (especially violence)
- Populations: general psychiatric population, prison, different levels of security etc
- Confounders (and what is a founder and what a mediator e.g. substance misuse and socioeconomic status)

## Does Mental Illness make someone more or less likely to be violent?

- Older studies suggested risk of violence was less (Steadman 1972) or the same (Hafner/Boker 1973) as the general population (but had methodological limitations)
- Now increasing body of evidence (Fazel et al 2009 notes more than 20 epidemiological studies) reporting association between major mental illness and violence

# Studies showing an association

- The ECA survey (Swanson 1990); whole community sample of over 10,000 from 3 large cities in USA (prison population not included), face to face interviews using diagnostic tool, outcome studied – Hx violence in previous year
- Base rate of violence in non psychiatric population 2%
- Those with schizophrenia or major affective disorder 8%
- Addition of substance misuse increased to 30%
- But overall contribution of community level of violence relatively small

# Studies Showing an Association

- MacArthur Violence Risk Assessment Study (Steadman et al 1998) longitudinal prospective study of violence among a sample of patients discharged from acute psychiatric facilities. In first year no significant difference in prevalence of violence in patients and matched sample of public if neither misused substances. Substance misuse significantly increased the risk in both groups but more so in mentally ill. Highest risk of violence was in those with personality disorder or adjustment disorder who misused substances

# Studies showing an association

- Taylor and Gunn 1984
- Hafner and Boker 1992
- Hodgins 1992
- Eronen et al 1996
- Hodgins et al 1996
- Steuve and Link 1997
- Kjelsberg and Dahl 1998
- Rasanen et al 1998
- Tiihonen et al 1997
- Wallace et al 1998
- Mullen et al 2000
- Angermeyer 2000
- Arsenault et al 2000
- Walsh et al 2001
- Fazel et al 2009
- *But the increased risk covers a broad range*
- *At the upper end of the range 7 fold increase in violence with patients with schizophrenia and up to 25 fold if misuse alcohol*
- *Although association seen in numerous countries*

# Homicide

- Wallace et al 1998 reported 7.2% of men convicted of homicide had been treated for schizophrenia before and findings of 5 – 11% suggested by other studies (Taylor and Gunn 1984; Hafner and Boker 1992; Eronen et al 1996)
- Equates to a male with schizophrenia having a 5 – 18 times higher risk than general population, but as homicide is rare event (1 in 100 000 rate in UK) the increase risk for individual with schizophrenia is 1 in 10 000. So although important for the community as a whole unlikely to affect individual clinician.

# Mediators for increase in violence in Schizophrenia

- Substance Misuse
- Active Symptoms
- Non Compliance with Medication
- Developmental factors
- Current Social Context
- Personality factors
- Deinstitutionalisation

# Substance Misuse

- Numerous studies identify substance misuse (typically alcohol, stimulants and cannabis) as associated with violence in those with major mental disorder (Swanson et al 1990; Steadman et al 1998; Soyka 2000; Steele et al 2003; Wallace et al 2004) cf rates of violence in schizophrenics who do not use substances
- Fazel et al 2009. Longitudinal Swedish study, hospital diagnosis, criminal convictions (violence defined), schizophrenics n=8003, compared with gen. pop n= 80 025, possible confounders and substance misuse status measured, non affected sibs compared with subjects to overcome familial confounders. Results: Schizophrenics had twice risk of at least 1 violent offence, which increased to four fold if used substances although attenuated when subjects compared non affected sibs

# Substance Misuse

- Wallace et al 2004 over 25 year period patients using substances increased from 8% to 27% but increase in violent convictions increased from 6% to 10% in line with control group. Authors claim if substances the sole reason for violence should have noted greater rise in violent crime to that recorded

# Active Symptoms

- Overwhelming evidence that delusional jealousy is associated with attacks on partner
- **'Threat/control override'** Swanson 1996 suggested that thought insertion, passivity phenomena and persecutory ideation particularly linked to violence
- Persecutory delusions, hallucinations and non-specific psychotic agitation all on occasion precipitate violence Mullen 1996; Foley et al 2005
- Command hallucinations

# Medication Non Compliance

- Significant risk of violence reported in those with dual diagnosis who are non compliant with medication Thompson 1999, possible synergistic effect Swartz et al 1998

# Developmental factors

- Schizophrenics who are violent more likely than non violent schizophrenics and the general population to come from deprived and disadvantaged backgrounds, have family hx of criminality, show developmental delay, poor education, poor peer relationships in childhood and adolescence Schanda et al 1992; Tiihonen et al 1997; Fresan et al 2004
- Strong correlation between childhood conduct disorder and later violence Hodgins et al 2005

# Current Social Context

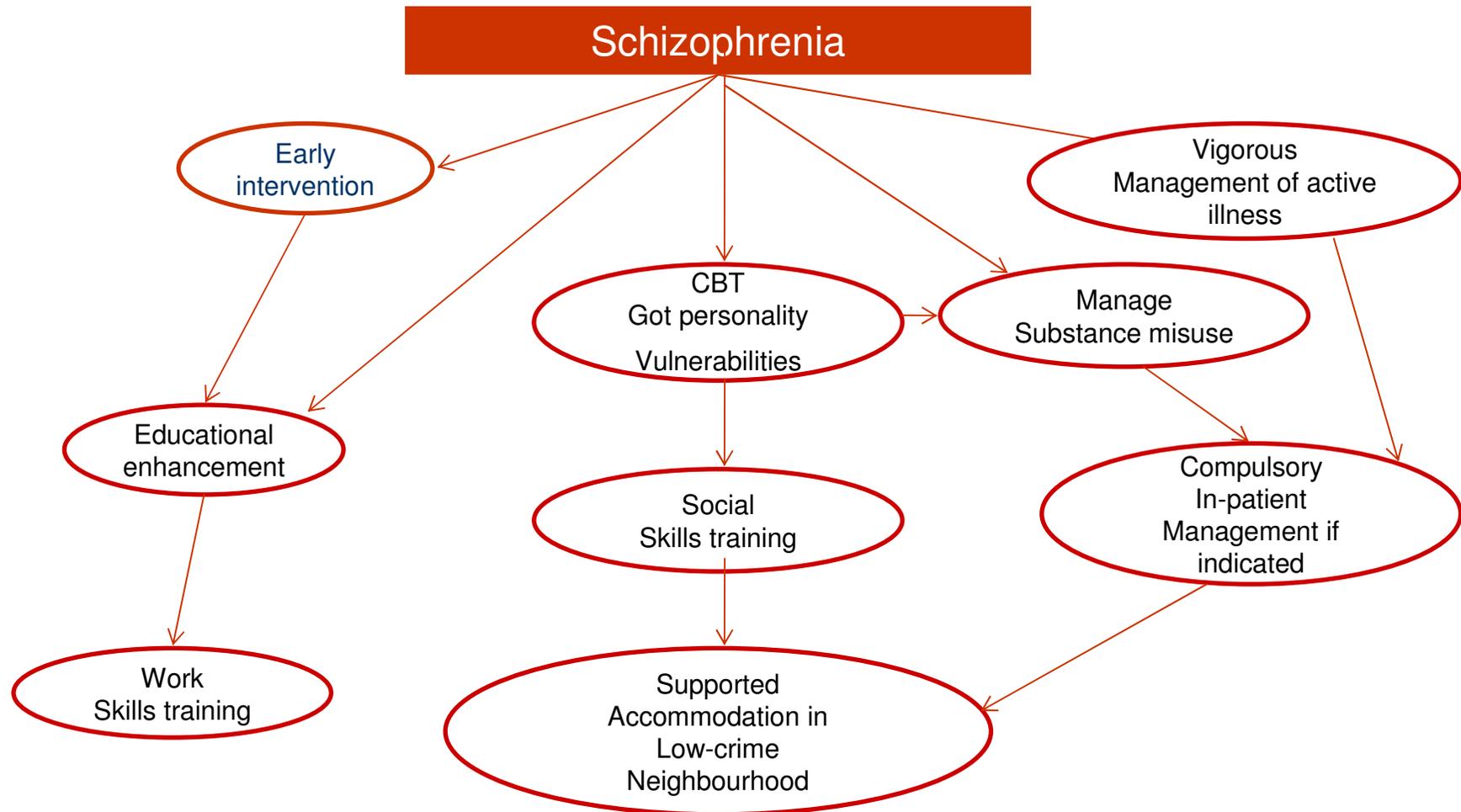
- Often unemployed leading to financial insecurity and social decline, drift into marginal existence characterised by poor housing or homelessness in disorganised neighbourhoods where substance misuse, interpersonal conflict and crime commonplace. Risk of violence appears to dramatically increase if those with major mental disorder discharged from hospital into high crime neighbourhoods Silver 2000; Logdberg et al 2004

# Personality factors

- There is now good evidence that personality factors mediate criminality in schizophrenia Moran et al 2003; Nolan et al 1999; Moran and Hodgins 2004; Tengstrom et al 2004
- Factors such as shallow affect, lack of empathy, lack of realistic long term goals, irresponsibility, grandiose self worth and oversensitivity, query synonymous with descriptions of the recidivist non mentally ill offender i.e. lack of remorse, callous, novelty-seeking and impulsive
- The violent schizophrenic may have dissocial traits prior to onset of illness or suffer coarsening of personality as a result of the disorder

# Deinstitutionalisation

- Popular with the media and politicians to suggest violence in those with mental illness due to failure of care in the community
- Mullen et al 2000 and Wallace et al 2004 found no evidence for this claim (though the community services were apparently well resourced, query different outcome may have been seen if this was not the case)



Interventions that could reduce the strength of the association between having schizophrenia and behaving violently. All interventions depend on accepting that it is the duty of mental health services both to manage the violence that can emerge from schizophrenia and to work with individuals who are misusing substances, delinquent and uncooperative.

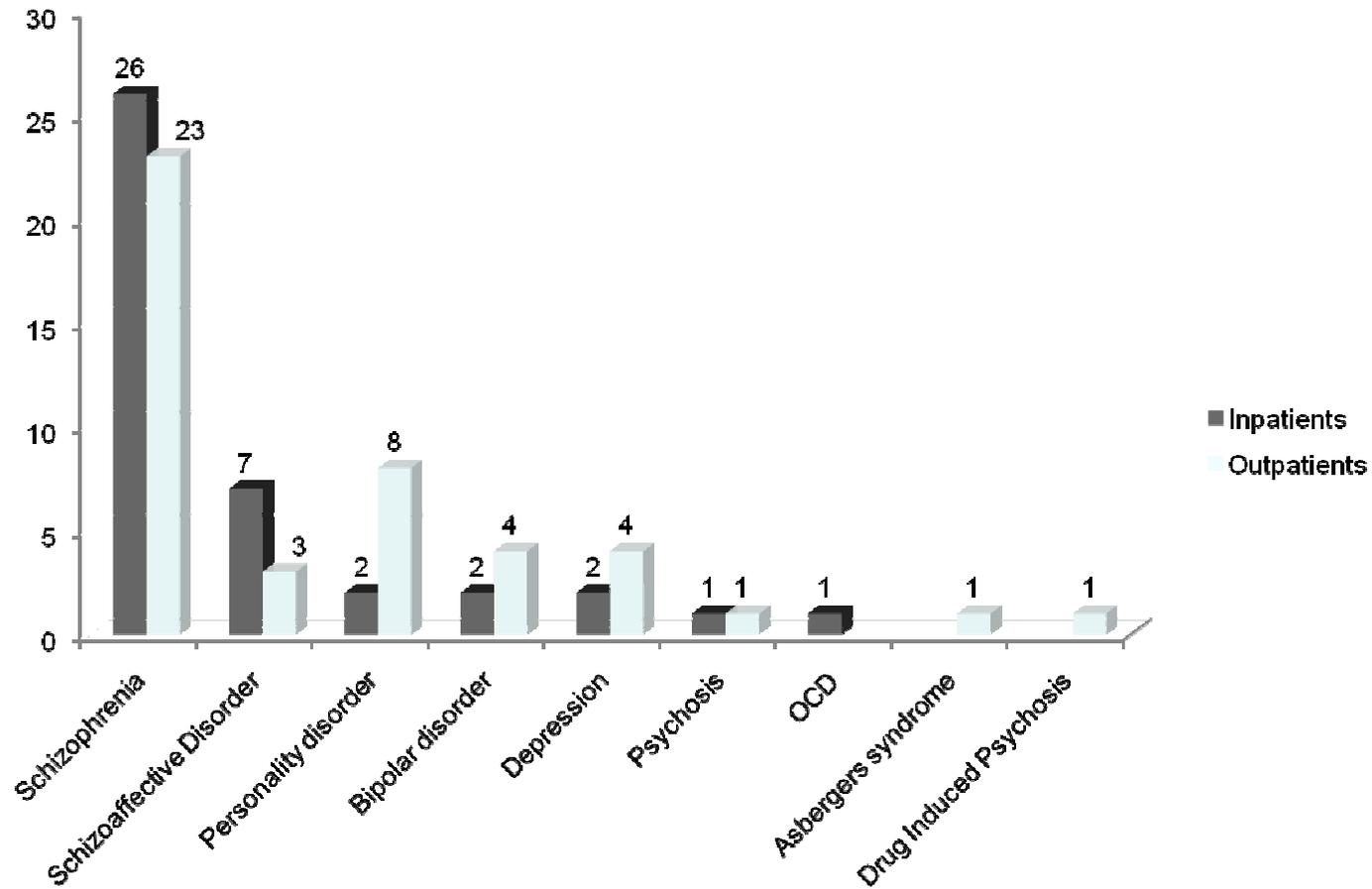
# What does this mean for Forensic Services (and other Mental Health Services?)

- Structured risk assessments with multidisciplinary input – RAMAS, HCR-20 etc
- Comprehensive packages of care including good symptom control, support, housing, substance misuse work etc; CTO's (pick up relapse early)
- Mainstreaming of substance misuse expertise in mental health teams, **integrated care** (not serial or parallel)
- Good documentation to evidence defensible decisions, cannot eliminate risk altogether.

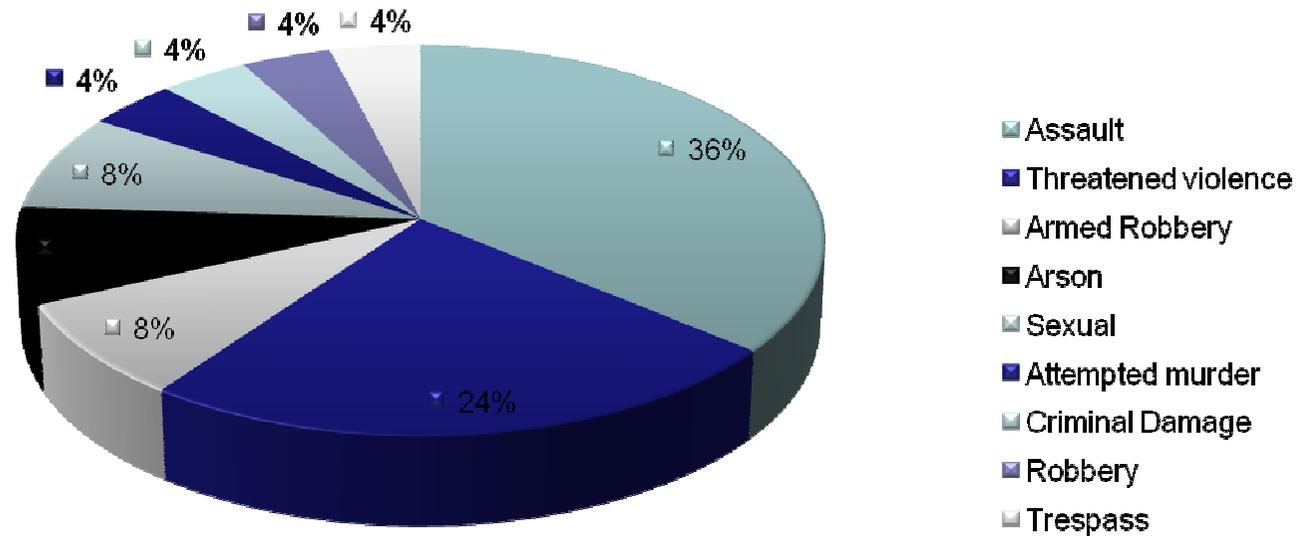
# The Local Situation

- Substance Use Screening tool developed (each patient assessed within 7 days of admission)
- 45 inpatient beds and 80 outpatients = 125 in the Leeds Forensic Service; 73% response rate, and all in-patients interviewed using the screening tool
- Of those responding 36 admitted to past or current illicit substance misuse problem, which rose to 59% when those with a CAGE score > or = to 2. (73% smoked tobacco)
- Alcohol, Cannabis and Stimulants used mostly
- 39% said they wished for help, 41% that they had had non in the past, 52% believed their substance use was not linked to their offending

## Diagnostic category of responders in Leeds Low Secure Service



## Index Offences of Responders in Leeds Low Secure Service



# Interventions

- Practice guidelines to promote consistency
- Survey of staff skills and attitudes to determine interested individuals and training needs
- Staff mentored as go through Dual Diagnosis Module at LAU
- Screening tool completed in first 7 days of admission – promoting identification of problems
- Referral system for in-house assessment and treatment
- Set up clinics, case based discussion group and support lead practitioners to see patients
- Liaison with other community services through the Leeds Dual diagnosis Network

# Conclusions

- There is good evidence to suggest major mental illness is associated with violence (most research has focused on schizophrenia); estimates of the increased risk vary
- No simple explanation for the increased risk of violence and likely to be interplay of various factors
- However, strong argument to adequately address substance misuse and current fashion for integrated services
- Structured risk assessments, multidisciplinary team input generating comprehensive packages of care, CTO's
- Good documentation to evidence defensible decisions

## 1. The association between schizophrenia and violent behaviour:

- a) Is statistically, but not clinically or socially, significant
- b) Should be calculated after allowing for the effects of mediating influences
- c) Is primarily the result of active symptoms such as delusions and hallucinations
- d) May account for up to 10% of violent crime, including homicide
- e) Should be taken seriously by clinicians for the sake of their patients and the safety of the community

## 2. Substance misuse in schizophrenia:

- a) Makes any attempt to manage the risk of violence more difficult
- b) Is a marker for increased risk of future violence
- c) Often manifests prior to the first recognition of psychotic symptoms
- d) Mediates most of the risk of violent behaviour
- e) Should be given high priority in the any service system that has as one of its objectives managing schizophrenia in people at high risk of behaviour violently

### 3. Personality vulnerabilities in schizophrenia

- a) Are primarily the results of the effects of active psychotic illness
- b) May precede the onset of active psychosis
- c) Can include such traits as suspiciousness, disregard for the feelings of others and fecklessness which predispose to violent behaviour
- d) Need to be assessed and managed in most people who are at high risk
- e) Are fixed

#### 4. Violence in those with schizophrenia:

- a) Is the business of mental health services to try and reduce
- b) Is overemphasised by the press and politicians
- c) Is the responsibility specifically of forensic mental health services, not general and community services
- d) Can be prevented by effective control of active symptoms
- e) May be exacerbated by first-generation anti-psychotics