



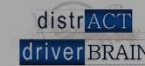
Department of Transportation
Planning and Engineering,
NTUA



Department of Neurology, Psychiatry
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Department of Psychology, UoA

Cognition, Behaviour and Driving

26 June 2015, Athens
Amphitheater NIMTS



Psychiatric symptoms and Disorders in Driving



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Psychiatrist

Athens, 26 June 2015

There is little evidence that psychiatric illness results in dangerous driving (Raffle, 1985)

25% of drivers in accidents are impaired

- Alcohol
- Drugs
- Emotional disorder

Cremona, 1996

- Little evidence that schizophrenics are more dangerous than controls
- 10% of accident drivers have suicidal ideation
- Patients with anxiety disorders have 50% more accidents
- After dementia the most dangerous disorders are mania and hypomania, severe depression, personality disorders

Silverstone, 1988



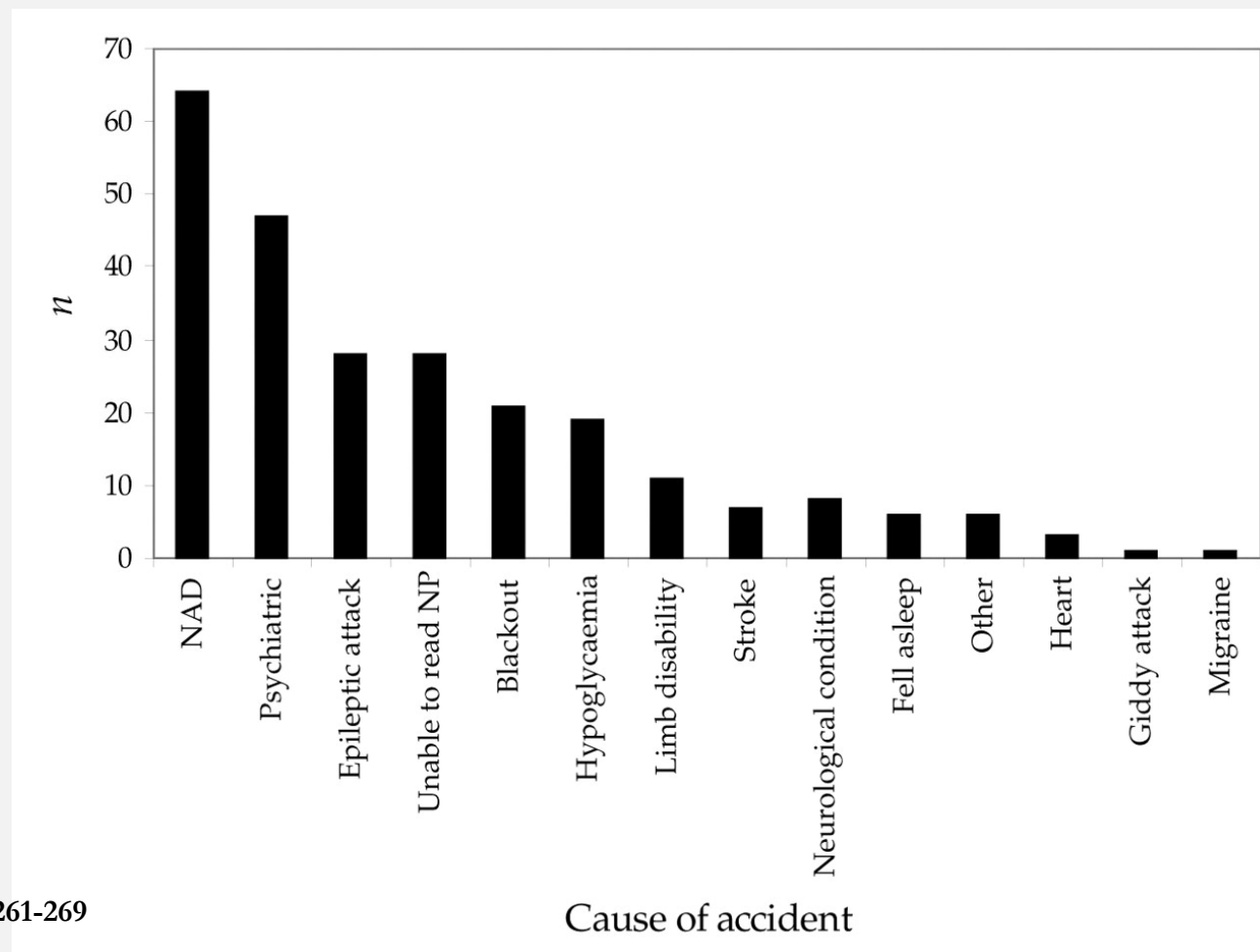
Suicidal ideation and driving

- 5.9% of fatal driver accidents are suicides
- In 4% of cases the crash led to death of another person

Ohberg, 1997

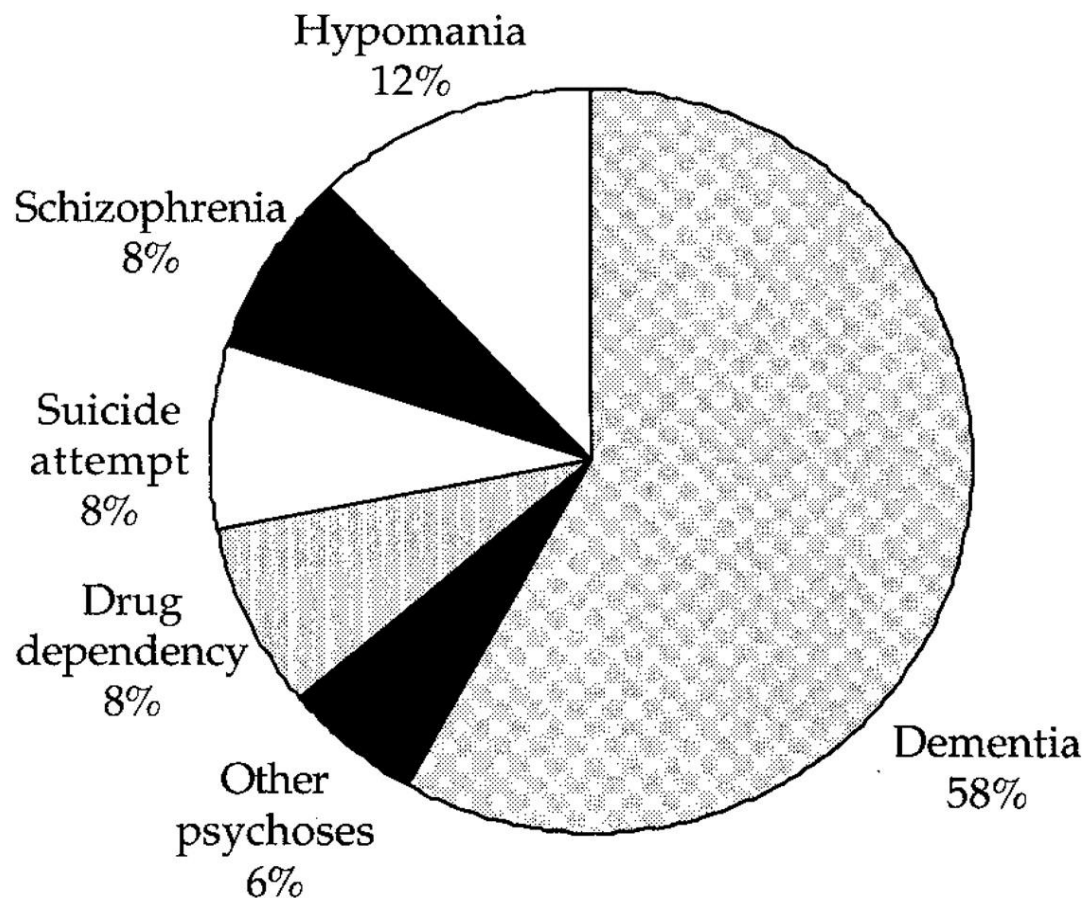


Analysis of about 25% of police notifications in 1995. n , number of reports (total = 250)



Harris M APT 2000;6:261-269

Psychiatric disorders identified on police reports as the cause of road traffic accidents



Harris M APT 2000;6:261-269

ADHD sufferers have

- 2-4 times more car accidents than controls
- 3 times more injuries
- 6-8 times more likely to have their licenses suspended

- ADHD affects 10.3% of young children (population studies)
- The prevalence decreases with age (4.4% in adults)
- Many ADHD patients through adulthood manifest
 - Anxiety disorders
 - Bipolar disorder
 - Drug and alcohol misuse
 - Anti-social behavior

Kessler, 2006

Faraone, 2003



- 41% of fatally injured persons were in alcohol related car accidents
- 46% of male traffic deaths are alcohol related and 29% for females
- Only 15% of traffic deaths among adults age 65 and over
Hingson R., 2003, NIAAA
- Cannabis is the most common drug detected in drivers involved in accidents

- Benzodiazepines are over represented in car accidents drivers
- Other drugs
 - Anti-psychotics
 - Anti-depressants (mostly the first period of use)
 - Lithium

There is considerable idiosyncratic variability profile on side effects of medication

Psychiatric disorders in Third Age

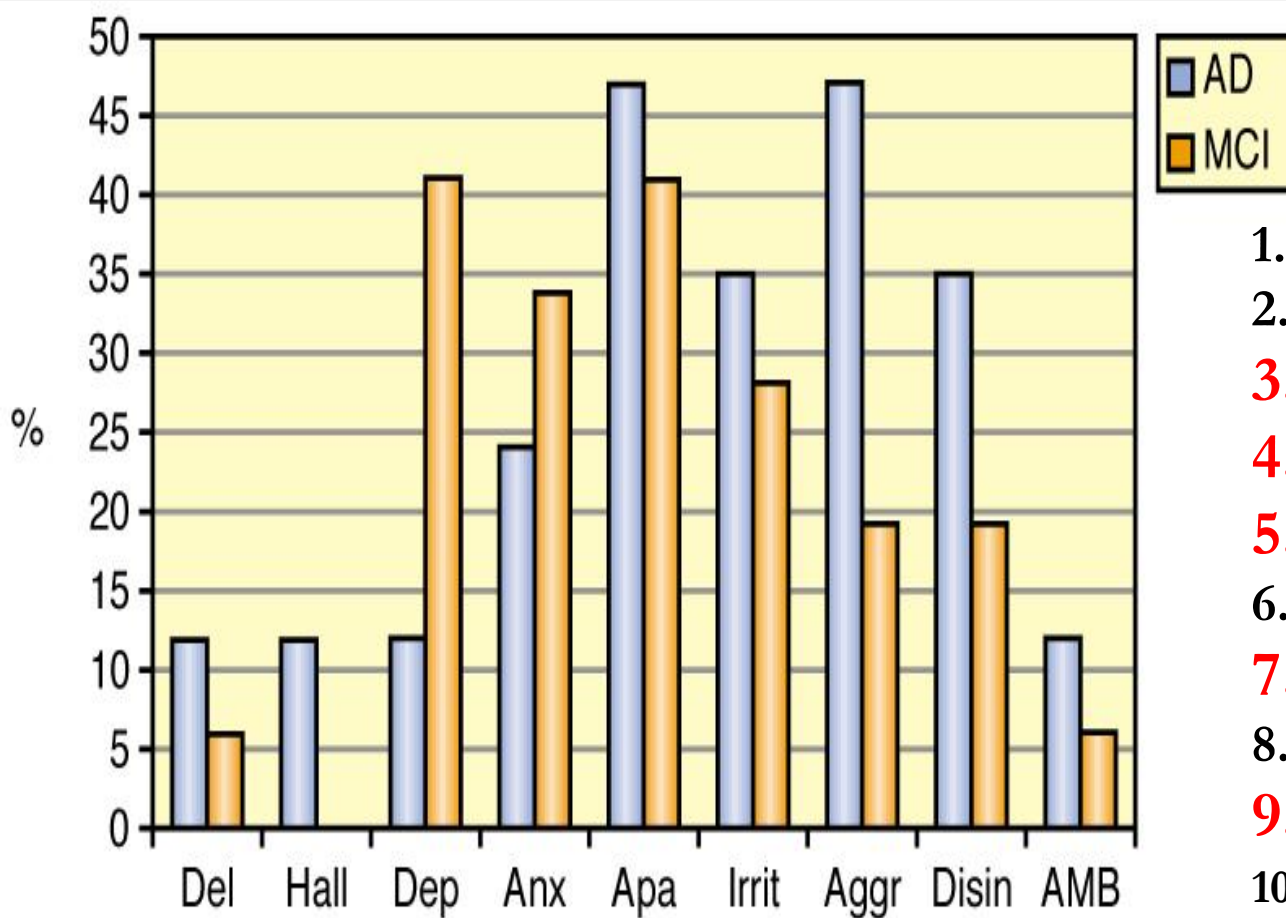
- Patients with psychiatric disorders drive fewer miles /year
 - But they have 2ice the number of accidents /mile
- Many schizophrenic and bipolar patients quit driving before the age of 65 years

Silverstone, 1988

Cremona, 1996



Mild cognitive Impairment (MCI) Neuropsychiatric symptoms and Driving



1. Delusions
2. Hallucinations
3. Aggressiveness
4. Depression
5. Anxiety
6. Euphoria
7. Apathy
8. Disinhibition
9. Irritability
10. Abberant motor behavior



Irritability / Agression

- Aggressive behavior driving and accidents correlate to
 - Driving violations
 - Irritability while driving

Chliaoutakis J., 2002



Impulsivity correlates to

- risky driving behavior

Shaneel B., 2013

Abberant Motor Behavior

- There is a relationship between Aberrant Behavior and self reported Accidents amongst professional bus drivers

Sakineh V., 2013

- The diagnosis of anosognosia is frequent in patients with mild AD but not in those with MCI

Orfei MD, 2010

- Anosognosia is a Significant Predictor of Apathy in Alzheimer's Disease

Starkstein S., 2010

Conclusions

- Psychiatric disorders probably affect driving
- Neuro-psychiatric symptoms in MCI and AD seem to correlate to car accidents and risky driving behavior



Thank you



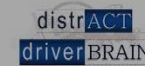
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