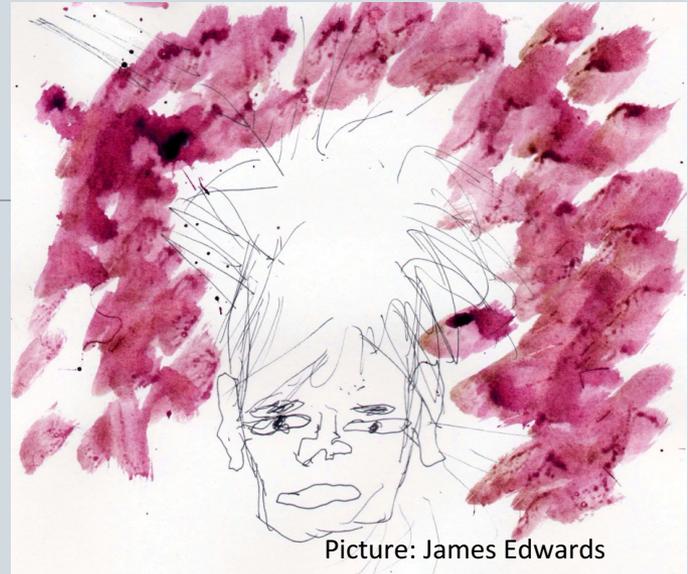


# Psychosis and Autism Spectrum Disorder

PETER CARPENTER

WITH THANKS TO DHEERAJ RAI

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Picture: James Edwards

# Plan of workshop

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- Why is this important
- The origins and evolution of a confusing debate
- Possible reasons behind an overlap
- Some case examples
- How do we diagnose and treat?

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# Major increase in autism diagnoses

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Now people asking in adult ‘is this schizophrenia and/or ASD?’

- How ASD affect treatment of Psychosis and vice versa

Very little known about

- how ASD fare later in life at the population level
- Common features leading to misdiagnosis of comorbidity or misdiagnosis of ASD.
- How far treating co-morbidities leads to better outcomes.
- How ASD affects treatment of comorbidities

Research on mental health in ASD and its treatment now seen as research priority.

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# Nosology intertwined in history...

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Bleuler (1905)- 'autism' was one of the four cardinal features (the 4 A's) of Schizophrenia



# Early attempts at separation (Kanner 1943)

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Normal development followed by decline vs 'extreme aloneness' from the beginning

Stepping out of a world after being a part of it, vs gradual compromise to extend cautious feelers into a world they have been strangers to (potential for progress and improvement)

## AUTISTIC DISTURBANCES OF AFFECTIVE CONTACT

*By* LEO KANNER

The combination of extreme autism, obsessiveness, stereotypy, and echolalia brings the total picture into relationship with some of the basic schizophrenic phenomena. Some of the children have indeed been diagnosed as of this type at one time or another. But in spite of the remarkable similarities, the condition differs in many respects from all other known instances of childhood schizophrenia.

# It's all called schizophrenia...

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Creak's (1961) 'nine points' for Schizophrenic Syndrome in Children

1968 DSM2 – 295 Schizophrenia

.0 Schizophrenia, simple type

8 Schizophrenia, childhood type

1970's the start of autism as neurodevelopmental disorder

ICD9 1977 separates out Autism but still has has current or residual state Autism

# ICD10 (research criteria)

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Childhood Autism: the condition is not attributable to schizophrenia of unusually early onset.

Aspergers – the condition is not attributable to simple schizophrenia, or schizo-typal personality disorder.

Chapters trump – schizophrenia trumps autism [*but in the here and now – if ASD as child then develop Schizophrenia do you lose ASD?*]

# Autism Spectrum Disorder DSM5

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Persistent deficits in social communication and social interaction across multiple contexts, as manifested by the following, currently or by history of:

- Deficits in social-emotional reciprocity, ... ranging from abnormal social approach and failure of normal back-and-forth **conversation**, to reduced sharing of interests, emotions or affect, to failure to initiate or respond to social interactions.
- Deficits in non-verbal communicative behaviors used for social interaction eg poorly integrated verbal and non-verbal communication to abnormalities in eye contact and body language or its understanding
- Deficits in developing, maintaining and understanding relationships. eg adjusting behavior to suit various social contexts, difficulty **sharing** imaginative play.

# Autism Spectrum Disorder DSM5

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Restricted repetitive patterns of behavior, interests or activities. At least 2 of: (current or in history)

- Stereotyped or repetitive motor movements, use of objects or speech.
- Insistence on sameness, inflexible adherence to routines or ritualised patterns of verbal or non-verbal behavior.
- Highly restricted, fixated interests that are abnormal in intensity or focus.
- **Hyper or hypo reactivity to sensory input** or unusual interest in sensory aspects of the environment.

# DSM5 differential diagnosis echoes DSM4

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Schizophrenia *with childhood onset* usually develops after a period of normal or near normal development. A prodromal state has been described in which social impairment and atypical interests and beliefs occur.

Hallucinations and delusions which are defining features of schizophrenia are not features of autism spectrum disorder.

- [But need to separate hallucination from eidetic imagery, imaginary friends etc. And delusions from bizarre misinterpretations or overvalued ideas]

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## Possible reasons behind an overlap

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ASD and Psychoses are on the same spectrum with a common origin

ASD is a risk factor for Schizophrenia

Diagnostic confusion because definitions or symptoms overlap

# Common origins?

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Children with ASD more likely to have a family history of psychotic disorders (eg Sullivan 2012).

Shared risk factors – e.g. paternal age, obstetric complications, fetal growth

# Is there a link through personality diagnosis?

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ASD said by some to include Schizoid Personality Disorder and Schizotypal Personality Disorder

Schizoid personality disorder [3 times more common than ASD?] is associated with a family history of Schizophrenia.

Schizotypal personality disorder predisposes to schizophrenia.

# ASD a risk factor?

## Population studies

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Stockholm Youth Cohort

ASD (n=9072) and matched controls (10:1) diagnosed before age 16

Adjusted Odds Ratio for Non Affective Psychotic Disorder by age 27

- 3.9 (2.8-5.6)
- 1.8 (1.2-2.8) for **full non ASD siblings** of those with ASD

For Bipolar Disorder

- 4.0 (2.8-5.8)
- 1.7 (1.1-2.6) for **full non ASD siblings** of those with ASD

# ASD a risk factor?

## Population studies

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ALSPAC birth cohort, Bristol (c14,000)

86 children diagnosed formally with ASD by age 11 (0.6% prevalence)

- In addition various dimensional measures of autistic traits measured [n=5359]

Interviewed for psychotic experiences at age 12

Those with ASD had Odds Ratio of 2.81 [1.07 – 7.34] for ‘psychotic’ symptoms.

- Similar results for autistic trait measures, including traits less likely to be confused with psychosis i.e. repetitive behaviours

# ASD as a risk factor for psychoses

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129 ASD adults referred to child neuropsychiatric clinic in Sweden (Ståhlberg et al 2004)

- 7% had bipolar disorder with psychotic features
- 7.8% had schizophrenia or another psychotic disorder
- *Lack of controls a limitation*

Of 89 children diagnosed with atypical autism, in long term follow-up 31 developed a schizophreniform illness (Mouridsen 2007)

- *But is this lack of accurate diagnosis of Autism?*

# An overlap clinically

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## Adults with ASD:

Self report hallucinations when well [eg, when bored]

Often report hearing voices 'in their heads'

'Delusional' belief is fairly high - usually grandiose or persecutory

Motor Catatonia can occur

## Adults with Schizophrenia:

Perform badly on ToM tests and on Visual ToM Jokes - not linked to severity of delusion or hallucinations.

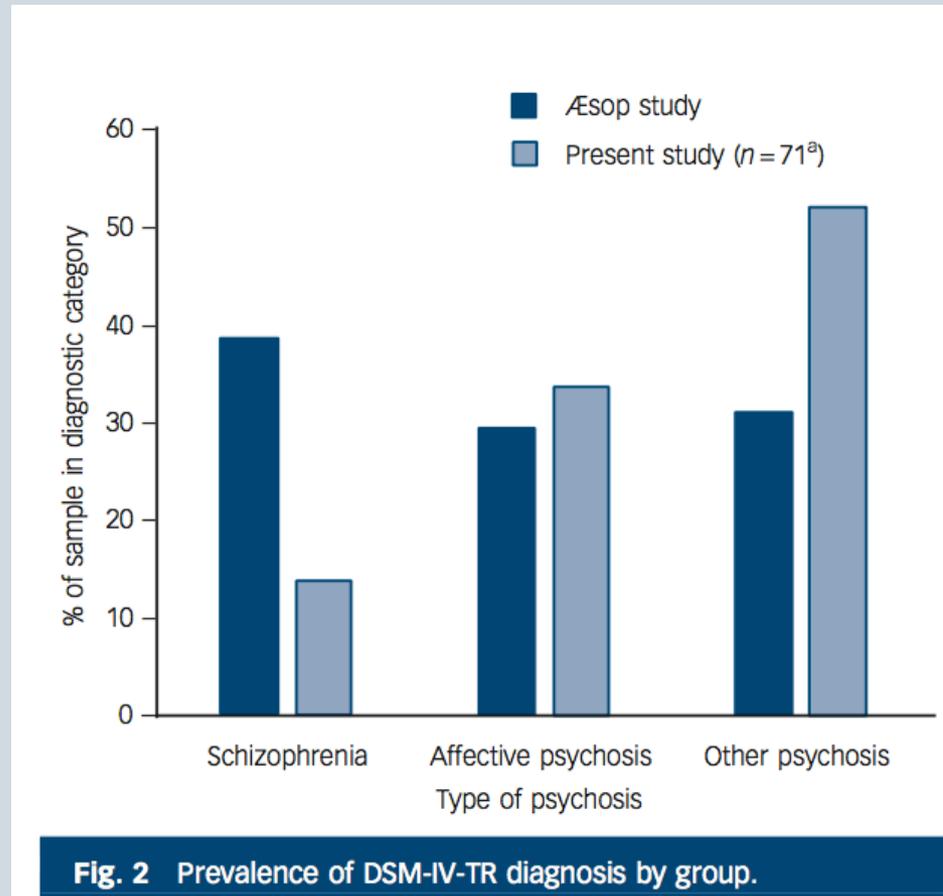
Majority of adults with Child Onset Schizophrenia meet one or more criteria for PDD

# Features of psychosis in Autism

Analysis of 116 adults with ASD and history of psychosis vs group of ASD only vs group of first episode Psychosis only [from AESOP]

ASD with Psychosis had significantly fewer lifetime repetitive or restrictive interests or behaviours than those with ASD only

Larson et al BJPsych 2017



# Some case studies

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- **How do we diagnose and treat?**

# Can one separate ASD from Schiz or from ASD+Schiz?

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Here and now behaviour diagnostic assessments such as ADOS algorithm will not separate ASD from Schizophrenia well. But the quality of the rapport and interaction may feel different And RRBI is feature of ASD.

## History will

- How autistic before age 10
- Was there a first illness – if so what like before and what happened?

## Comments of Raja 2009

- Motor clumsiness is not frequently observed in schizophrenia.
- Specific skills and unusual and restricted interests are not described in schizophrenia.
- Violence in ASD more often targeted at relatives, unlike in schizophrenia.

# Mistaking ASD for psychosis

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Thoughts expressed simply and concretely by someone who has difficulty in describing internal symptoms can sound very like hallucinations.

Occasionally, a very vivid account of events is held consistently but is plainly false; these perceptions do not seem to trouble the individual or to be associated with any functional change. There is the sense that the individual is living in a 'video world', only detectable and comprehensible if the interviewer has also seen the video.

High arousal in a developmental disorder can produce an acute and transient psychotic state with hallucinations and thought disorder.

Incomplete answers can sound like psychotic symptoms. For example, a bald report, without elaboration or context, of everyday teasing can sound like persecutory delusions.

# Mistaking ASD for psychosis

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A pragmatic difficulty in appreciating the extent or limitations of someone else's knowledge of a topic, coupled with a tendency to obsessiveness, can result in over-inclusive, irrelevant speech that mimics thought disorder.

Impassivity and a lack of awareness of the emotional climate can look like inappropriate or blunted affect.

The catatonic symptoms (e.g. odd mannerisms and postures, freezing or difficulty in initiating movement) that occur in a variety of neurological conditions, including schizophrenia, can also occur in ASD (Wing & Shah, 2000).

The slow and reluctant response of patients asked to perform a task that has no meaning for them resembles the negative symptoms of schizophrenia.

ASDs can show improvement with neuroleptics (Campbell *et al*, 1996).

# Thought disorder? My college application

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+ I repeated the full first year twice having failed the coursework. + We have inherent high capability, there is little you cannot achieve, with the relevant permissions. + I have never recovered from the loss of the place at college, as such making up for the deficits, that I attributed to its loss, growing intellect and even within a mental institution. I felt I have proven myself to myself and my peer group in that environment, gained confidence, equality, learn't practicality. This equality - overcome inferiority complex. I have learnt to work in groups, with the groups-deficit for an Asperger. + This is what I need to get my life back on track, taking the harder path, the only thing that absorbs me, sharpening me back as a tool, to my former self- mental agility. The more energy I get to direct the more stable I am.

# When is it a delusion in autism (or ID)?

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## Pointers

- [Clear consciousness]
- Held with Certainty [are are most beliefs of person with autism]
- Fixed – absolute certainty [most people with autism will discuss their beliefs]
- Bizarre – [if non-bizarre might be a delusional disorder] [but check not logical for the person with autism, given their understanding]
- Dominating behaviour adversely [make you want to treat it]

But consider also if it is:

- Fantasy
- Recall
- Magical thinking

Emotional commitment to it does not separate out.

# Treatment of Psychosis in ASD

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## Conventional neuroleptics.

- Care of side effect intolerance
- Aripiprazole fashionable due to lack of blood tests etc. [if it works]
- Clozapine can work well – powerful anxiolytic.
- It may be Catatonia and not NMS

## Practical structure and support works

- They may have problems seeing future plan
- Deal with loss of confidence.

## Nidotherapy is good for both Schizophrenia and ASD

## Do consider reducing the neuroleptics.

- But I recognise that very low dose neuroleptics can reduce stress and be protective.

# Conclusion

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Increasing evidence showing adults with ASD may have increased liability for psychosis.

- These are commonly transient states but may last long enough to be labelled Schizophrenia.

But... adults with ASD can present features that can be mistaken for Psychosis (and vice versa).

Are we not recognising psychosis in ASD enough or are we treating it but not labeling it as schizophrenia?

Does this affect how we design services for ASD? Or for Early intervention services?