

**“Helping kids with behaviour and learning  
difficulties.  
An evidence-based approach”**

Western Australian Centre for Rural Health

Presented by: Dr Kim Pedlow

# Agenda

1. DDx of treatment resistant depression      Q & A
2. Teach Them How to Fish, Abrolhos Group      Q&A
3. Tips and Tricks      Q&A
4. Summary

# Dr Kim Pedlow- biography

- 1979-2018 GP obstetrician in Geraldton, ~ 3,000 births. Caring for many young children.
- 1990 –2023 involved in the diagnosis and management of Neurodevelopmental disorders as GP with interest. ~ 60% of my paid work.
- Founding chair Mid West Division General Practice, manager youth mental health project and ADHD project of 1997/98
- Instigator of these Friday morning talks
- 2023 principal Victoria Districts Medical Centre, five GPs (GP, anaesthetics, obstetrics, fertility control, skin cancer diagnosis and management, one nurse practitioner, two nurses who run treatment room, immunisation, procedures, tests, chronic disease, triage, skin cancer including photodynamic therapy
- 2014—2023 Chair Abrolhos Group.....Geraldton based accredited not-for-profit to support assessment and management of neurodevelopmental disorders in rural WA.

## Team Approach

**Team:** GP with interest in NDDs Dr Pedlow, nurse practitioner/child health nurse with interest NDDs Natalie Holmes, Senior Nurses Ane Els, Kiryn Singh-McConnell, educational psychologist Dr Angelkovska (Ph D assess and manage NDDs), video link developmental paediatrician Dr Jehangir, psychiatrists Dr Seth, Dr Marshall, speech pathologist Anthea Dobson, senior teacher with interest in NDD's Fiona Angelatos.

**Network:** School teachers, school psychologists, remedial teachers, allied health, mental health, multiple other community organisations.

**Process:** Initial information gathering by nurse practitioner Natalie Holmes. We have a practice template. School and parents provide a letter of introduction, rating scales and semester reports. Rating scales ..... Snap 4, Vanderbilt, adult ADHD rating scales are very useful. Remember cross setting, children home and school, adults self and medical mate walking in the their shoes.

**Caution:** We make it abundantly clear that we are a GP clinic that has an interest in this area. It is important that our families don't get the wrong impression and that they know the scope of practice of each professional.

I am not specialist paediatrician nor psychiatrist nor psychologist therefore cannot initiate psychostimulant treatment, need the backup of my specialist network.

# Treatment Resistant Depression

- Where the patient does not respond to the systematic treatments and adjunctive therapies.

# Depression

- Depressive disorders are one of the most pressing public health problems, directly accounting for about 4.4% of disease burden worldwide
- 50–80% of patients who have received psychiatric care for an episode of major depression have at least one further episode, and other recurring episodes in their lifetime.
- 20–30% of patients with major depressive disorder develop a chronic course of their disease resulting in a decreased quality of life.

## Treatment Resistant Depression

- Empirical literature is lacking in the field of treatment-resistant depression (TRD).
- Re-evaluation is very important to the ongoing management of these patients especially in the context of diminution in the quality of their life.

# Case Study 1

- PT is a male 50 years of age.
- Above average intelligence - can write poetry, excellent mathematician, loves problem solving, can teach math/physics.
- Divorced, with children, grandchildren
- Unemployed and homeless
- Uses illicit substances for sleep and stress.
- Initial diagnosis - severe depression, anxiety.
- Hospitalized for psychotic episodes, aggressive behaviour
- Symptoms: insomnia, severe depression, anxiety.
- Treatment: ADT with poor response to different ADT regimes

## Case Study 2

- 53 year old female
- Average IQ with above average spatial skills; exceptional artist
- Never married, has one daughter
- Unemployed and lives on her own - plays online games all day
- Initial diagnosis - severe depressive disorder/ anxiety disorder
- Symptoms: chronic insomnia; fibromyalgia; severe social anxiety; emotionally labile; psychosomatic complaints ( GIT problems; panic attacks; head aches; sweaty palms).
- Eye contact not well coordinated with verbalisations, sensitive to lights; was unable to wait in the crowded waiting room at the surgery without experiencing palpitations.
- Treatment: ADT with poor response to different regimes

## Case Study 4

27 /07 /20                      6yo boy, referred by school for possible ADHD, clear disability in that his peers are frightened of him, school is very concerned.

- Assessment by Child Health Sister Natalie Holmes, GP Kim Pedlow and Dr Jehangir paediatrician confirmed a very good story of combined hyperactive/impulsive ADHD with significant disability. He met the DSM V criteria for diagnosis.
- Trial of short acting Ritalin was chaotic due to alcoholic probably ADHD mother sometimes self-medicating, forgetting to give it to son.
- Problem solved during school hours by getting the school to administer his Concerta on arrival at school. They then give to Concerta to the family for administration on the weekend.
- For him is best to continually medicate rather than stop on weekends, holidays and so on. Not just academic and behaviour at school we are targeting.
- 09/11/20    Telephone consultation with staff at school. Mum not present. Success with Concerta 18 mg.

# Findings

- Neuropsychological assessment of these and similar patients with TRD resulted in meeting criteria for neurodevelopmental disorders such Autism Spectrum Disorder (ASD) and ADHD.
- Had the diagnosis ratified and treatment options revised and altered by Psychiatrists.
- Some patients were eligible for NDIS funding (i.e. Autism) and obtained the required psychosocial support.
- Six month follow up resulted in a reporting of less anxiety, better adaptive functioning, better understanding of their condition and better recognition of the triggers for their anxiety and overall improved quality of life.

Please educate your family, loved ones and caring circle from the following trusted sources of information.

The National Institute of Mental Health in the USA \_ <https://www.nimh.nih.gov>, is generally recognised to be the lead organisation in the area of neurodevelopmental disorders, that is ADHD, autism and learning disorder. Please access for accurate up to date information follow the links to ADHD, autism and medication.

There are some excellent resources on language based learning difficulties and ADHD in the Geraldton City Library, these include books, videos donated by the local Neurodevelopmental network.

For Geraldton information please access the Abrolhos Group. Follow prompts from .....<http://www.abrolhosgroup.org.au>.

Follow the links through the learning disability page to the ADHD manual for more information.

Questions?



**Teach them how to catch fish**

## Geraldton...1990

- Parents were blamed for most of their child/children's poor behaviours.
- Many of these children were receiving remedial teaching, repeating years, being suspended or expelled despite not having a formal educational psychometric assessment.
- Many intelligent children with undiagnosed learning difficulties such as dyslexia and dysgraphia were lost in the system. Problems with literacy, numeracy, written expression and behaviour are common in this group.

## Dr Trevor Parry Director of Child Development Centre, PMH

- Visited Geraldton 1992 and introduced the Geraldton health community to the concept of:
  - Neurodevelopmental disorders in children- ADHD, AUTISM, Pre-Natal Alcohol exposure syndromes
  - And the common comorbidities..... dyslexia, dysgraphia, dyscalculia, central auditory processing disorder.
- Midwest Division GP set up a shared care program:
  - Co-prescribing Specialist paediatrician, psychiatrists, GPs.
  - Local health professionals gave it a mixed reception.
- I was convinced re: efficacy of medication by the following writing samples of before and after Ritalin.

# Sample 1: Before treatment

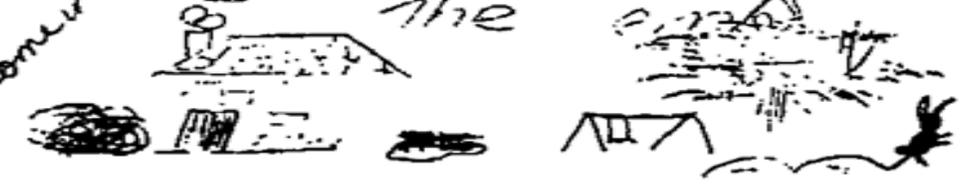
Matthew  
War

Glendon CA  
11/4/97

reading books, magic wais, words  
and... helps, a magic things  
Blue robbin flew down to the  
rabbit & Red Backed in flew  
to the Bear. (Red & Blue  
robbin) Red robbin said  
to the Bear "Why won't  
you snage the cottage?  
Blue robbin said, "Why  
don't you snage the  
cottage together?"  
They stopped the war, et  
that ~~was the end~~ they  
said "Ok, we will do  
ok! Great!" The Bear &  
robbin id ~~was getting~~  
to getten into the cottage

Where  
the Magic  
Comin?

The



## Sample 2: Nine days after treatment

Matthew | Cabin 9  
10<sup>th</sup> April/92

A night at Bunbury  
Speedway

One nice after noon I  
was at Bunbury Speedway  
Ron Krikey how driver no 99  
was opened for 2 week.  
For arguing with Con  
Migrow.

"Dad" was going well very  
well indeed they were time  
trielles Dad go 17.45sec.  
the car was handling goo-  
d. I did dad's helmet.

After the Speedway had  
fined we went to the  
bareque talking & laughing  
we were - Rod Rocket Brown  
team and pairs team & dad's  
crowe were left from the  
Speedway

PI

## **1999.....Formal assessment of these under performing children resulted in a high proportion of them being diagnosed with neurodevelopmental disorders.**

- Surveys of WA schoolchildren have found a state prevalence of 5% but 11 % for rural areas. Our experience confirms this with a higher prevalence in some of the more isolated areas.
- Via the MWDGP project we undertook to educate and support local professionals in the management of learning disabilities and behavioural disorders. A local network of GPs, schools, psychologists, local branch of LADS, social agencies, psychiatrists and visiting developmental paediatricians was established.
- A formal shared care programme for medical management of neurodevelopmental disorders was agreed to by a series of coordinated care meetings. The GP determines to what extent they will become involved in diagnosis and management.

## Assessments

- Our assessments are based on the DSM V [the Diagnostic and Statistical Manual of the American Psychiatric Association].
- Rating scales are particularly useful. Initially the Barkley tables were the most faithful to the prior DSM IV and were used on all cases.
- 2023 Snap 4, Vanderbilt, Adult ADHD rating scales and DASS 21 for comorbidity are efficient and reliable ways of gathering information.
- Perusal of school reports often reveal a pattern of underperformance.
- Examination is performed to check for other neurological disorders, defective hearing or sight and to measure height, weight, blood pressure and head circumference.

# Triggers for Ed. Psych. Assessment

- On 3 June 1999 a well attended meeting of Geraldton school principals, teachers, educational psychologists, paediatricians, GPs approved the following triggers for Educational Psychology Assessments for students at risk:
- Suspension or threatened suspension
- Remedial teaching or consideration of such
- Repeating a year or consideration of such
- Significant under performance. Must be significantly disabling functional impairment.
- School refusal

## Why in 2014 was there a need to reform services in Geraldton and regional WA?

- 1999 consensus triggers for psychometric assessment were not being met by the local education system.
- State system does not have the expertise and is overwhelmed by demand from the schools.
- Community education standards continue to drift.
- Private assessment is difficult to access and expensive.
- We are local stakeholders and have the capacity to assist.
- Kids with behaviour problems often have a Neurodevelopmental disorder.
- Dr Fiona Stanley and the Telethon Kids Institute estimates 89% of kids in Banksia Juvenile Detention have these disorders.

# Psychometric Assessments

- Aim to ascertain potential and compare this with skill and achievement.

## **This entails:**

- Assessment of intelligence, learning difficulties, particularly language based such as dyslexia, dysgraphia.
- Assessment for ADHD and Autism.
- It is deemed desirable to assess the child's potential in the above manner prior to engaging on any therapy such as behavioural modification.

## Abrolhos Group Data

From November 2019 to January 2023, Dr Angelkovska (PhD assessment and management neurodevelopmental disorder) has seen:

340 new cases seen, 12% Aboriginal

- 219 psychometric assessments
- 120 new autism cases, many of these had been in the health and education system for many years with undiagnosed autism being the underlying problem of multiple behavioural and learning difficulties
- The total expenditure for the Abrolhos group from establishment to the present is \$86,867

Dr Pedlow, nurse practitioner Natalie Holmes, VDMC GPs share care with specialists and co-prescribe for

~600 cases of neurodevelopmental disorder.      ~400 children, ~200 adults

Networking specialists include

- Developmental paediatrician Dr Jehangir by video link.
- Psychiatrists Dr Kavita Seth and Dr Katrina Marshall by video link
- Paediatric clinic Geraldton regional Hospital.
- CAMHS Geraldton psychiatrist

## Abrolhos Group Information

- Dr Angelkovska measures IQ, learning strengths and weaknesses, specifically dyslexia, dysgraphia, dyscalculia, autism, ADHD.
- This is achieving timely diagnosis of various learning difficulties. Enables targeted assistance at school, often with increased funding. Many schools in Geraldton are now benefiting from these new arrangements. Cases of autism and global intellectual disability often receive NDIS funding.
- Our inaugural conference ‘Teach Them How to Catch Fish’ was held at WACRH in Geraldton 06-07/05/2021. 43 attended, mostly health and educational professionals. Presentations were mainly face-to-face with 4 being Zoom.

## Fee Schedule & Support offered by Abrolhos Group

### **Psychometric Assessment by Dr Angelkovska – \$950**

(Full or partial subsidy available via Abrolhos Group depending on circumstances)

### **Autism Assessment by Dr Angelkovska – \$1500**

(Full or partial subsidy available via Abrolhos Group depending on circumstances). Autism assessments require medical specialist verification, at extra expense. Video link at Victoria Districts Medical Centre. Some cases require speech pathology assessment at additional expense

## Resources for Families- ADHD

- The National Institute of Mental Health in the USA \_ <<https://www.nimh.nih.gov>>, is generally recognised to be the lead organisation in the area of neurodevelopmental disorders, that is ADHD, autism and learning disorder. Please access for accurate up to date information follow the links to ADHD, autism and medication.
- [ADHD WA](#) – formerly LADS
- Understood: free information and resources to help parents : <https://www.understood.org/en>
- Language based learning difficulties and ADHD resources in the Geraldton City Library, including books and videos donated by the local neurodevelopmental network.
- For Geraldton information please access the Abrolhos Group. Follow prompts from <http://www.abrolhosgroup.org.au>.
- Follow the links through the learning disability page to the ADHD manual for more information- we are about to update our website with new links.

# Australian Evidence- Based Clinical Practice Guideline For Attention Deficit Hyperactivity Disorder (ADHD)

1<sup>ST</sup> EDITION - 2022

New evidence-based [guidelines](#) have been published by the Australian ADHD Professionals Association (AADPA), including 132 recommendations designed to support the approximately one million Australians thought to be living with ADHD.

QUESTIONS?

## Tips and Tricks

- Assess the child in the presence of family unless there are exceptional circumstances. Best to be open and honest with a soft landing for example when likely diagnoses are discussed.
- Warn the patient and family about the circle of carers and probable fake news. Steer them towards trusted and accurate sources of information.
- If appropriate mention that Kerry Stokes has dyslexia, Elon Musk has high functioning autism (formerly called Asperger's), same for Bill Gates. I tell them that if Elon and Bill went through the Western Australian system all those years ago they would have fallen through rather large cracks and probably be making a living inspecting for holes in the Rabbit Proof Fence out the back of the Murchison.
- Tell them that medication for ADHD, mood disorder related to neurodevelopmental disorder in children is very safe. Way safer than uncontrolled symptoms from neurodevelopmental disorder and associated comorbidity.

## Resources for Families

- The National Institute of Mental Health in the USA \_ <https://www.nimh.nih.gov>, is generally recognised to be the lead organisation in the area of neurodevelopmental disorders, that is ADHD, autism and learning disorder. Please access for accurate up to date information follow the links to ADHD, autism and medication.
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<http://www.abrolhosgroup.org.au>.

## Summary

Formal assessment of under performing children results in a high proportion of them being diagnosed with **neurodevelopmental disorders**.

ADHD ~5%, often higher in rural areas. Our experience confirms this with a higher prevalence in some of the more isolated areas.

AUTISM ~1.5%

Learning Disorder ~15 -20 % ..... ie dyslexia, dysgraphia, dyscalculia

## Summary

- We have expertise in assisting those in our community who have **neurodevelopmental disorders** such as specific learning difficulties, ASD, ADHD.
- Our aim is to facilitate early identification and accurate assessment so that a range of options can be given to the families.
- We subsidise disadvantaged families so that no child misses out
- We are in step with the Telethon Kids Institute in WA, Australian College of Physicians (Paeds) and Psychiatry. National Health and Medical Research Council in Australia, the Education Department of WA and the National Institute of Mental Health in the USA.

# Questions?

# Medication

- methylphenidate (Ritalin, Ritalin LA, Concerta): sequencing
- dexamphetamine (Vyvanse): sequencing
- atomoxetine (Strattera): sequencing, lifts mood. Good mix with methylphenidate, dexamphetamine
- clonidine (catapres): impulsivity, often sedates therefore used at night. Good mix with methylphenidate, dexamphetamine.
- guanfacine (Intuniv): same class as clonidine much less sedative effect therefore useful in the morning for impulsivity. Good mix with methylphenidate, dexamphetamine
- Risperidone: used for anxiety, meltdowns, rage attacks, insomnia associated with autism
- SSRI medication: in children sertraline, fluoxetine sometimes fluvoxamine- used for mood disorder often still have black box warnings, make sure parents are aware of this.

## Case Study 3

- Likely autism in Yr 2 bright 7yo boy with no learning disorder, no obvious ADHD.
- **ASD traits**
- Anxiety at school, hides under desk. Doesn't socialise at school, Doesn't have any close friends, No socialising after school, Cannot demonstrate empathy, Unable to interpret social cues and respect personal space. doesn't get invited to birthday parties.
- Shuts down for up to one hour when he is not comfortable or when being told off
  - Head down, eyes down, shoulders up. no talking, hides.
  - Can take 1 hour to get him to have a shower.
  - If he in the middle of a task like googling, drawing, learning if given a new task he will shut down, refuse.
  - The more mum asks for him to go have a shower the worse it gets, shuts down more.
  - Refuses to go to the dentist even though he needs filling.
- Very high academic performance, School attendance 100%
- Some anxiety around going to school. mum states wants to go to school but has some anxiety. So he will take his time to get ready for school.
- Good result for insomnia from melatonin from [www.iherb.com](http://www.iherb.com)
- Referral to psychologist Dr Angelkovska, with safety net.
- Cc of these notes given to mum to share with school and family. I explained to mum that we would be better off educating the family, loved ones and caring circle openly and honestly including her son from the trusted sources of information.