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Epilepsy at School: Its Impact on Learning and Behaviour

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PLEASE NOTE:

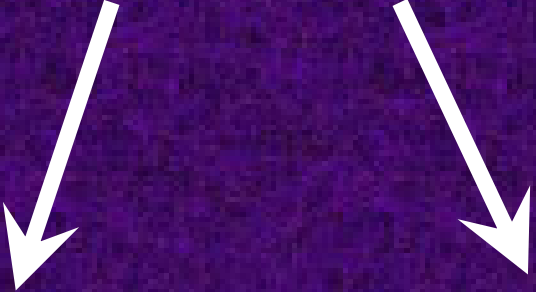
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Impact of epilepsy:

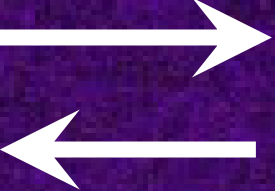
Research shows:

- ❖ Higher incidence of intellectual, academic & behavioural difficulties in children with epilepsy compared to peers
- ❖ Also at greater risk of academic and behaviour problems compared to children with other chronic illnesses e.g., asthma, diabetes

Cognition
"Thinking Skills"



Learning



Behaviour

Cognition:

“Thinking Skills”:

- ❖ Intelligence

- ❖ Attention

- ❖ Memory

- ❖ Thinking Speed

- ❖ Executive (higher level) skills

- e.g., problem solving, planning & organising, creating ideas & strategies

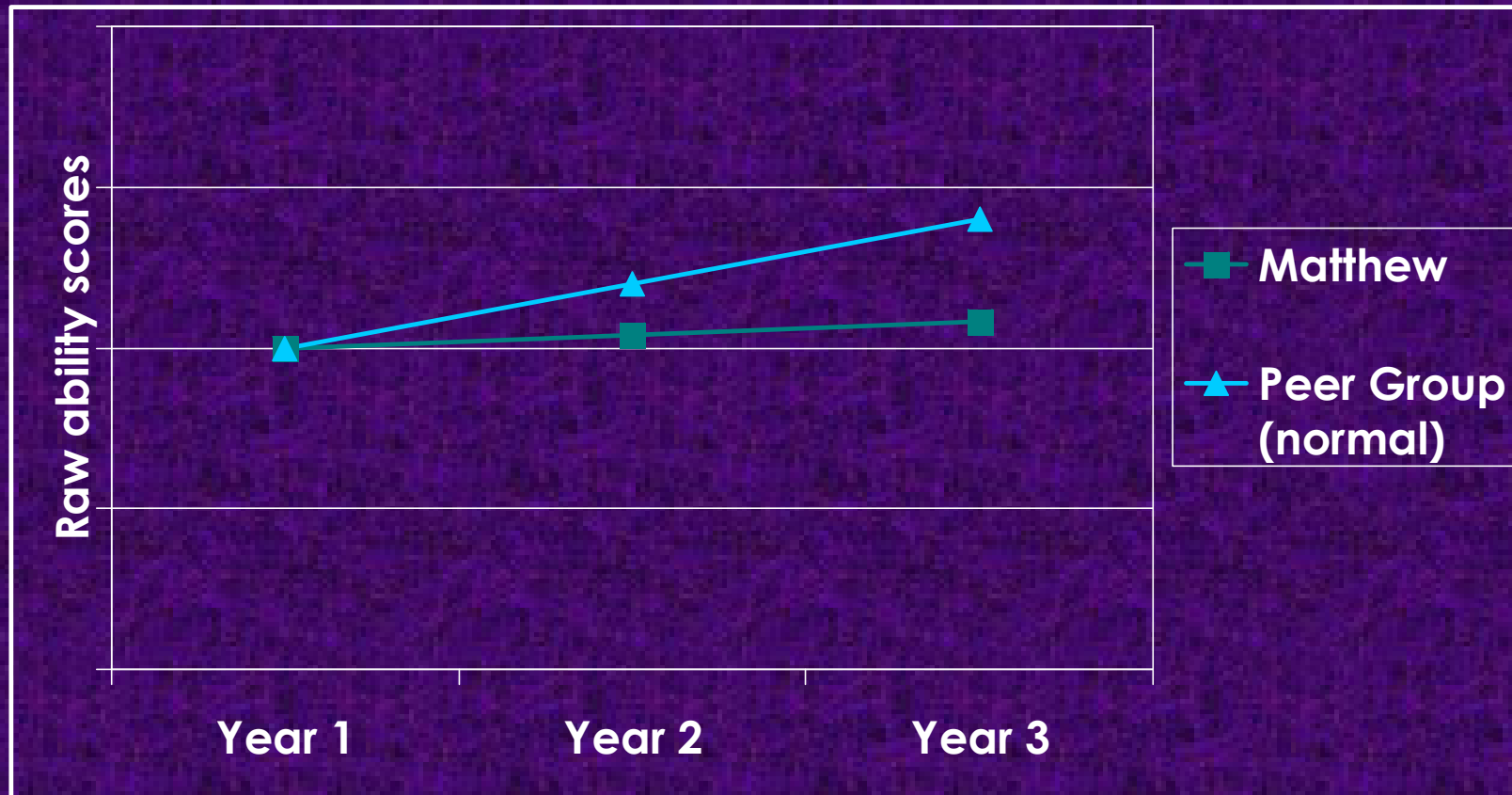
Intellectual functioning:

❖ Common question:

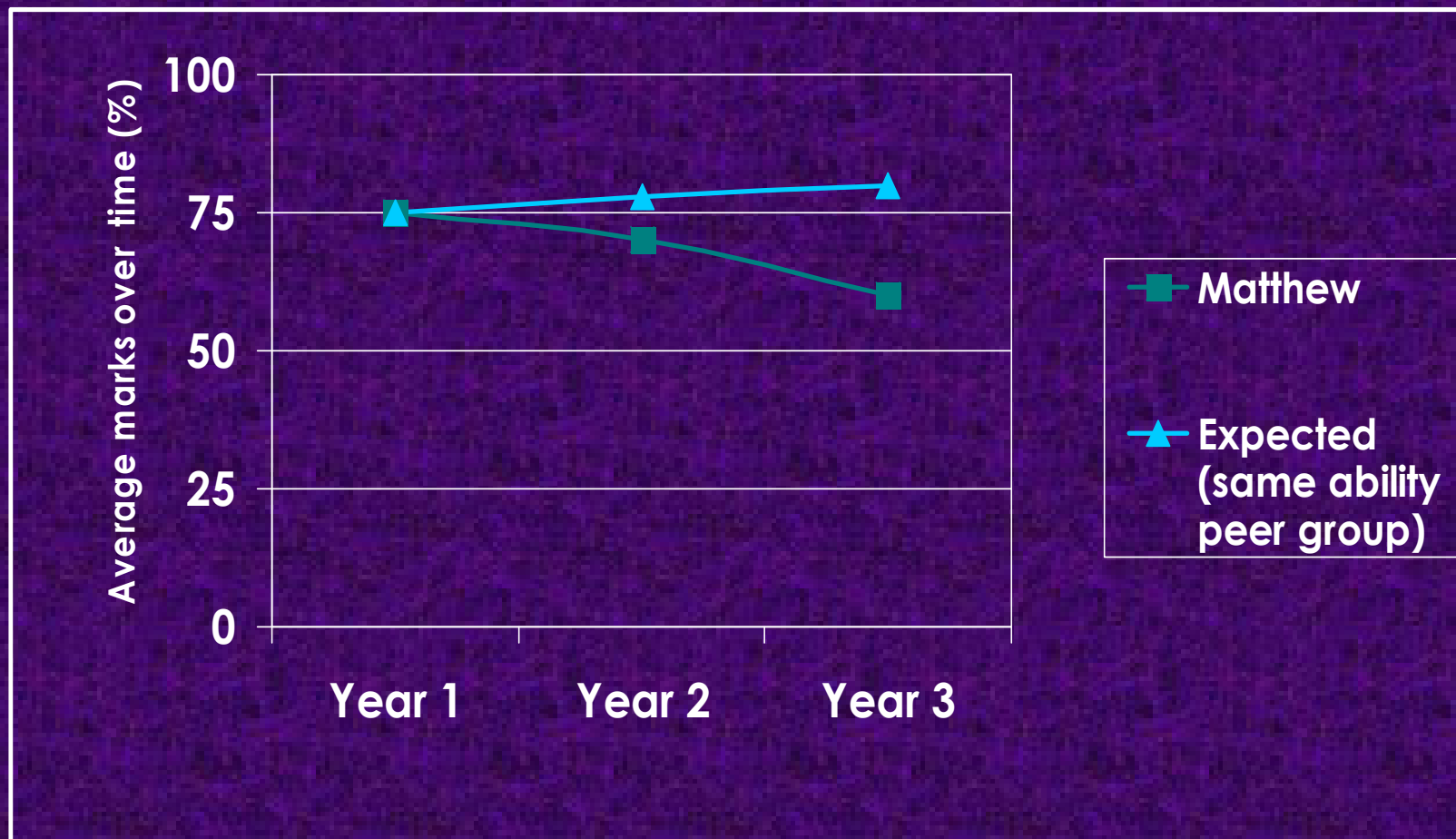
“Will epilepsy make my child less smart?”

- Will intelligence decline?
- Decline = LOSS of skills
- Slowed progress = child stays at same level or acquires skills more slowly while peers progress more quickly

Matthew's ability level over time



Matthew's academic performance over time



Slowed cognitive progress:

❖ **Effects on child:**

- ⇒ Slower to learn new skills; remain “stuck” at lower level than friends
- ⇒ classmates label them as “stupid”
- ⇒ teasing, social isolation
- ⇒ negative self esteem
- ⇒ depression (if child has insight)
- ⇒ behaviour problems: acting out, inappropriate attention-seeking and/or withdrawal, loneliness

Slowed cognitive progress:

- **AT SCHOOL:**

- increasing academic problems

- ⇒ Frustration in classroom

- ⇒ Development of behaviour problems

- ⇒ In trouble with teacher

- ⇒ Dislikes school

- ⇒ Escalation of behaviour problems and school avoidance

Slowed cognitive progress:

- **AT HOME:**

- ⇒ parents notice current school performance doesn't match previous

- ⇒ disappointment & pressure to perform (ask questions child can't answer, e.g., "WHY?")

- ⇒ conflict at home

- Problems often seen at school first

- Can see reverse scenario – child lets out frustrations at home

EXECUTIVE SKILLS

- ❖ manage & control other cognitive functions
- ❖ “higher level” thinking skills
 - Complex tasks
 - Independent functioning
 - Monitor & regulate behaviour & emotions
 - Continued development into late adolescence (frontal lobes)

Executive skills:

- Plan & organise
- Develop & change strategies
- Evaluate information
 - Make decisions
 - Respond to unexpected situations
 - Adapt to new situations
- Use feedback to modify own behaviour

Planning & Organisation Problems:

- Trouble starting assignments promptly
- Difficulty assembling appropriate equipment/materials
- Difficulty with multiple step problems/tasks (Where do I start? What next?)
- Chaotic, unsystematic approach
- Focus on details rather than bigger picture (“missing the forest for the trees”)
- Overwhelmed & confused with large amounts of information

Working memory:

❖ = holding & keeping track of information in mind

- **Difficulties:**

- Carrying out multi-step activities
- Following complex instructions
- Keeping track of work
- Doing mental arithmetic/calculations in head
- “Sticking to” a task or activity
- Remembering rules (⇒ often interpreted as “naughtiness”)

Working memory problems:

- ❖ Often misinterpreted as disobedience or non-compliance
 - **At school:**
 - ⇒ instructions are not followed
 - ⇒ child gets in trouble
 - ⇒ child constantly feels “lost” in class, unable to keep track of tasks, confused as to what he/she is supposed to be doing
 - ⇒ feelings of failure, helplessness
 - ⇒ increasing frustration with school
 - ⇒ behaviour problems
 - ⇒ vicious cycle

Mental Flexibility problems:

- Require consistent routines, \Rightarrow upset if disrupted
- Can't drop a topic of interest or "move on"
- Obsessed with a particular object/activity
- Need objects to be placed in same position each time \Rightarrow upset if moved
- Need certain games/activities to be played same way each time \Rightarrow upset if not
- Difficulty generating strategies or working out different ways to solve a problem

Executive problems:

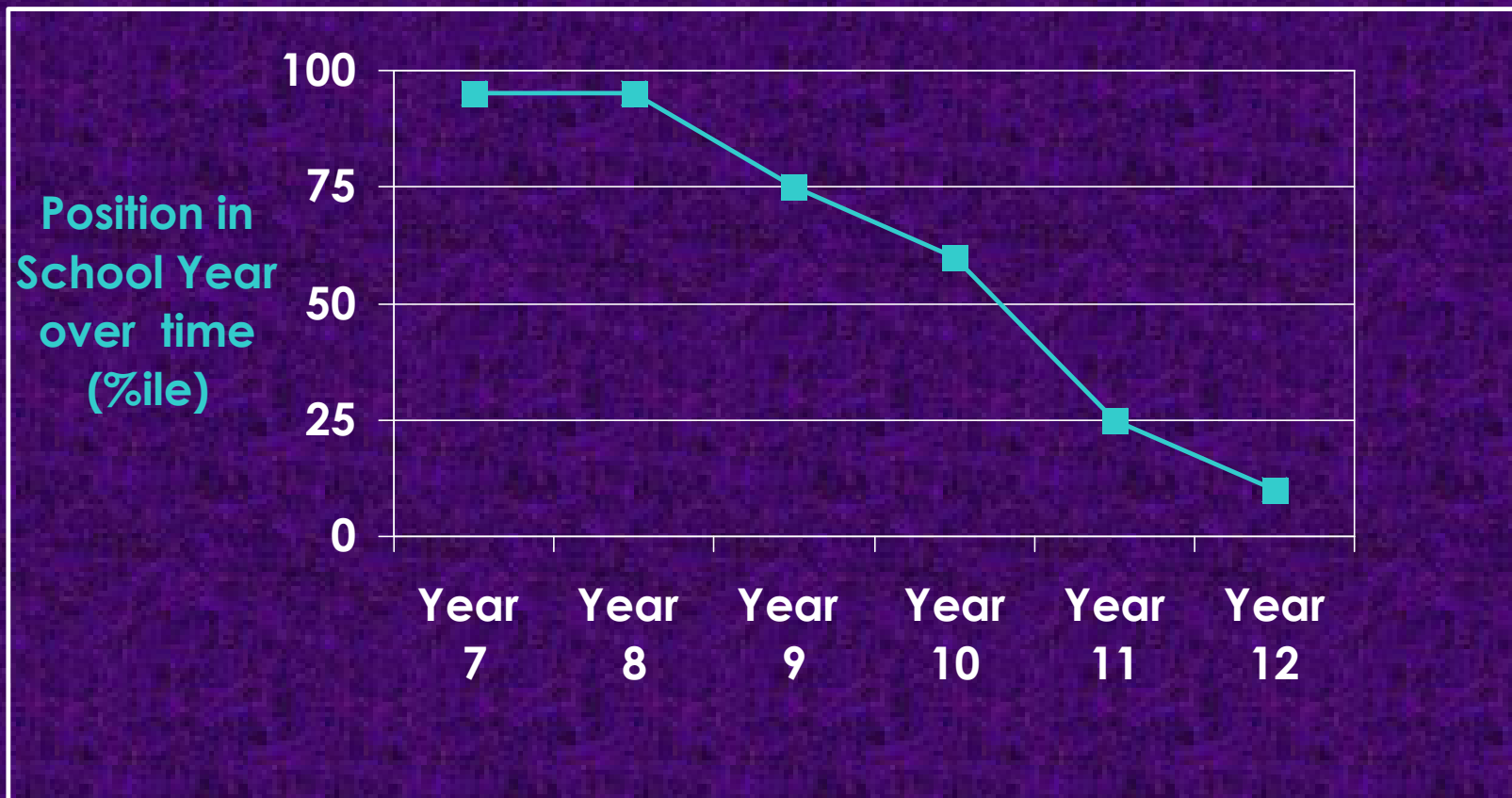
❖ Inhibitory control

- Impulsive
- Restless
- Intrusive or annoying behaviours
- Tendency to interrupt and disrupt

❖ Self-monitoring

- “rush through” work
- Careless mistakes
- Inappropriate behaviour
- Unaware of impact or consequences

Katrina's academic performance over time



Management strategies:

- Give only one instruction at a time
- Prepare child for changes in routine
- Help child use checklists for routines
- Step-by-step lists
- Visual cues (e.g., STOP! sign)
- Star charts & reward systems
- Behaviour modification programs
- Social skills and self-awareness training

Neuropsychology

- ❖ The relationship between the brain, cognitive functions (thinking skills) and behaviour.

Neuropsychologists:

- ❖ Investigate changes in thinking and behaviour due to brain dysfunction
- ❖ Minimum 6 years university training
 - 4 year Honours degree
 - 2 years specialist postgraduate training
 - Postgraduate clinical training

How can Neuropsychology help?

- ❖ Thorough assessment of cognitive abilities using specialised tests
 - Intellectual abilities (IQ)
 - Processing speed
 - Attention
 - Learning & memory
 - Language skills
 - Visual-spatial skills
 - Executive skills
 - Academic abilities
 - Behaviour

How can Neuropsychology help?

- ❖ Analysis of information to pinpoint cause of problem
 - Memory problem:
 - Attention?
 - Information processing?
 - Difficulty accessing information in memory?
 - Attention problem:
 - Short attention span?
 - Filtering information?
 - Shifting attention?

How can Neuropsychology help?

- ❖ Detailed information to parents and schools
- ❖ Help teachers and parents develop specific strategies
- ❖ Visit schools:
 - Talk to staff
 - Advocate for child's needs at school
 - Help develop individually tailored educational plan

How can Neuropsychology help?

❖ Strategies:

- Photocopied notes
- Regular breaks
- Multiple choice questions
- HSC via Pathways
- Special Provisions in exams

❖ Assist schools in applying for support funding for child (e.g., Teachers Aide)

How can Neuropsychology help?

- ❖ Help parents access support services
 - Tutoring
 - Behaviour management
 - Speech and language pathology
 - Occupational therapy

How to find a Neuropsychologist:

❖ PUBLIC: Children's Hospitals

- Sydney Children's Hospital
- Westmead Kids' Hospital
- John Hunter (Newcastle)
- Canberra Hospital

❖ PRIVATE:

- Australian Psychological Society

Message For Parents:

- ❖ If your child has epilepsy and is experiencing problems at school or at home, don't ignore them.
- ❖ Act early to prevent snowball effect.

What to do:

❖ Talk to teachers regularly

- Be alert to comments like:
 - *Doesn't concentrate*
 - *Doesn't listen*
 - *Doesn't finish work*
 - *Doesn't follow instructions*
 - *Can't work independently*
 - *Interrupts others*
 - *Talks too much*

- Ask specific questions
 - *Is her work up to its usual standard?*
 - *Does she have any areas of weakness?*
 - *Can she follow instructions?*
 - *Does she finish her work in class?*

What to do:

❖ Observe your child

- Look out for warning signs:
 - Crying, reluctance to go to school
 - Moody, emotional outbursts after school
 - Reported difficult behaviour at school but good behaviour at home (or vice versa)
 - Difficulties with homework
 - Reluctance to talk about school
 - Negative comments about teacher/s

What to do?

❖ Build positive self-esteem

- Reassure that academic performance isn't everything
- Encourage hobbies & activities they enjoy
- Praise efforts rather than just successes
- Praise "ordinary" accomplishments
- Make child feel valued at home (e.g., give responsibility within ability level)

❖ Help is out there!

Questions???