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Physiotherapeutic Interventions in Child and Adolescent Mental Health Services (CAMHS): The evidence for who, what and why

Dr Erin Byrd, Ulster University



Exploring the confidence and attitudes of physiotherapy students to work with people experiencing mental ill health

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Physiotherapeutic Interventions in Child and Adolescent Mental Health Services (CAMHS): The evidence for who, what and why

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The Problem....

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Who are the CAMHS patient population?

- severe, complex and enduring emotional, behavioural or mental health difficulties

Severe and enduring mental health
difficulties (SEMD)

Neurodevelopmental Disorders (NDD)



Long-term health implications of early onset mental ill health

- Medications
- Lifestyle behaviours
- Health inequalities
- Motor challenges

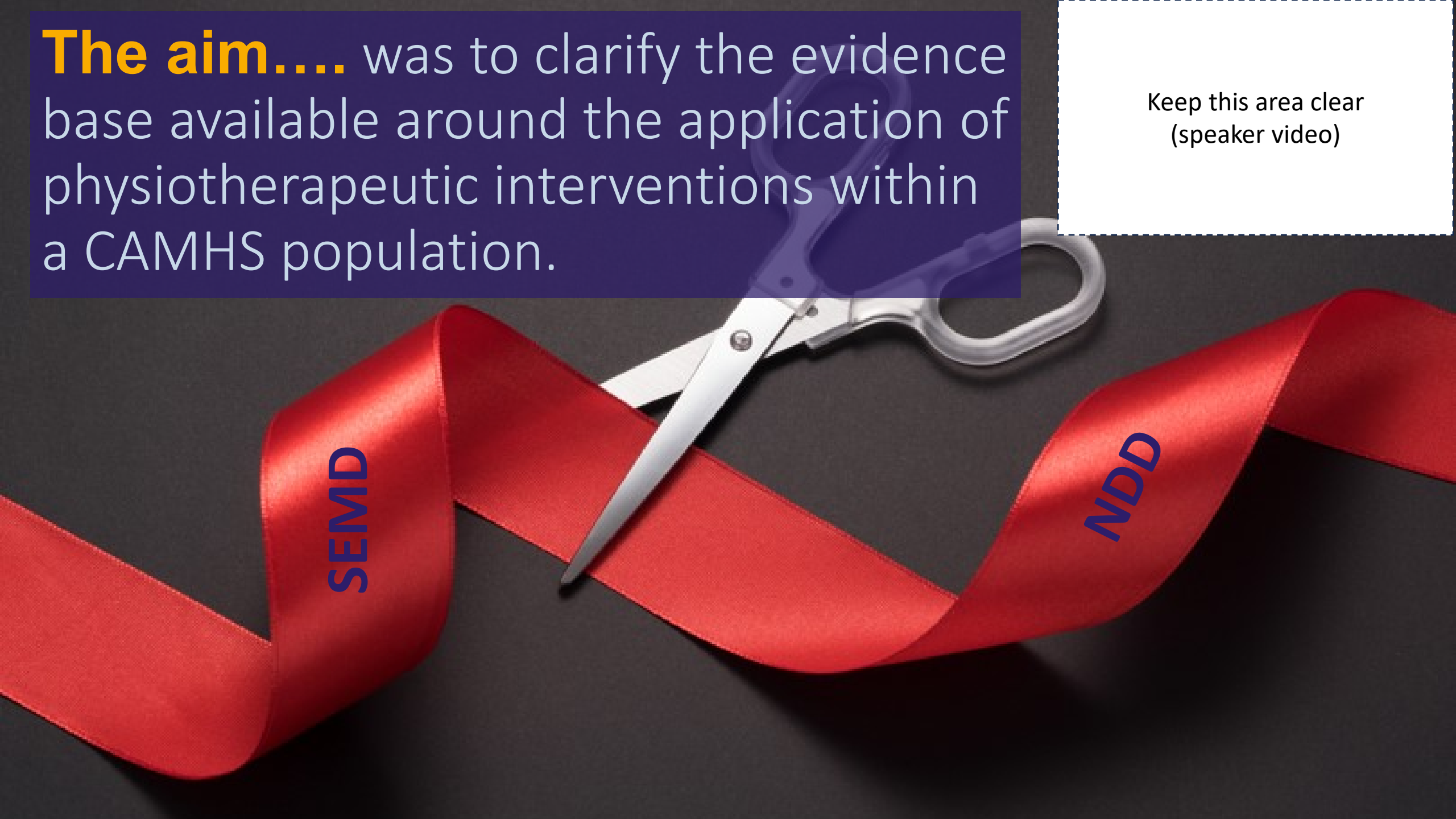
Need for early intervention

The aim.... was to clarify the evidence base available around the application of physiotherapeutic interventions within a CAMHS population.

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SEMD

NDD



The process....

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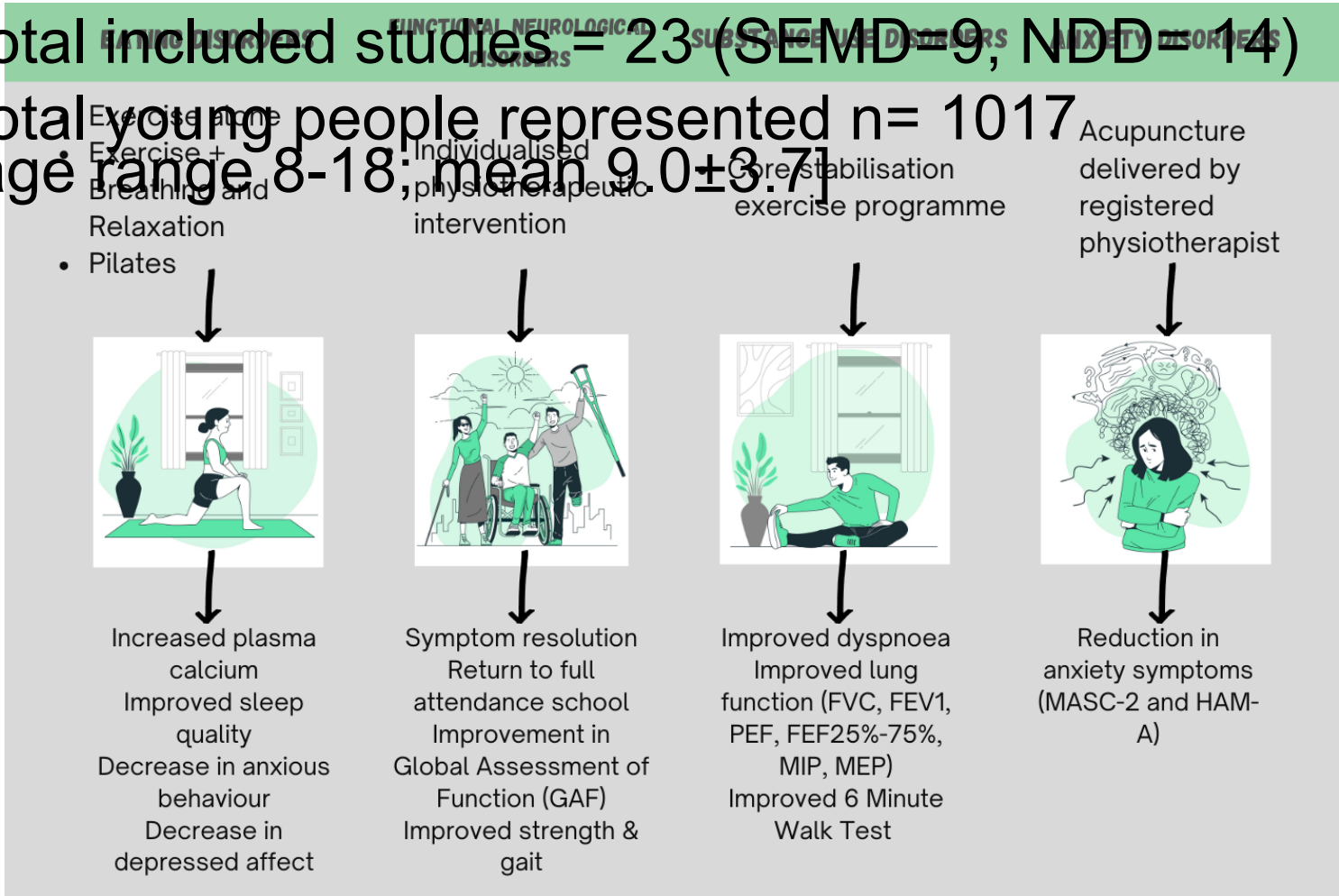


Results...

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• Total included studies = 23 (SEMD=9, NDD=14)

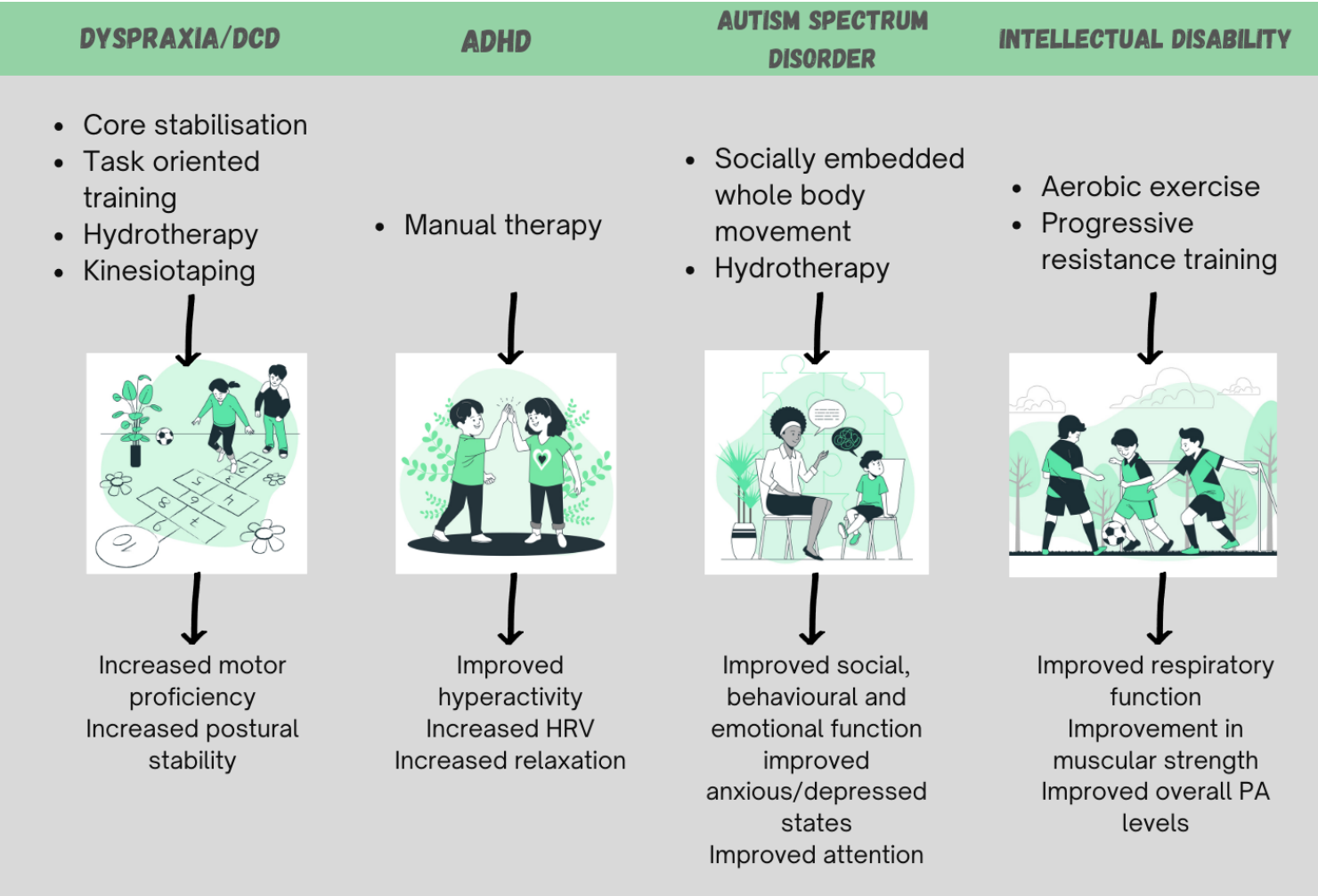
• Total young people represented n= 1017
[age range 8-18; mean 9.0±3.7]



SEMD

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Results...

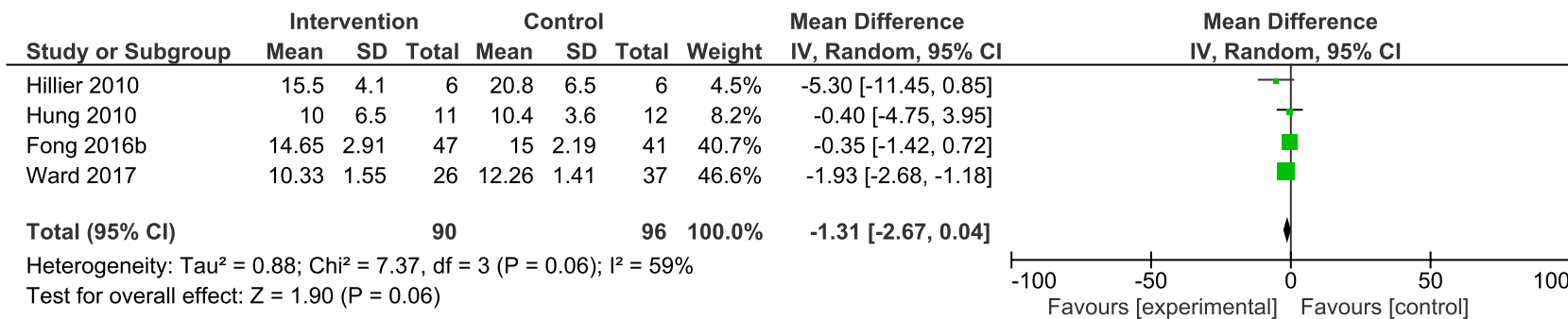


NDD

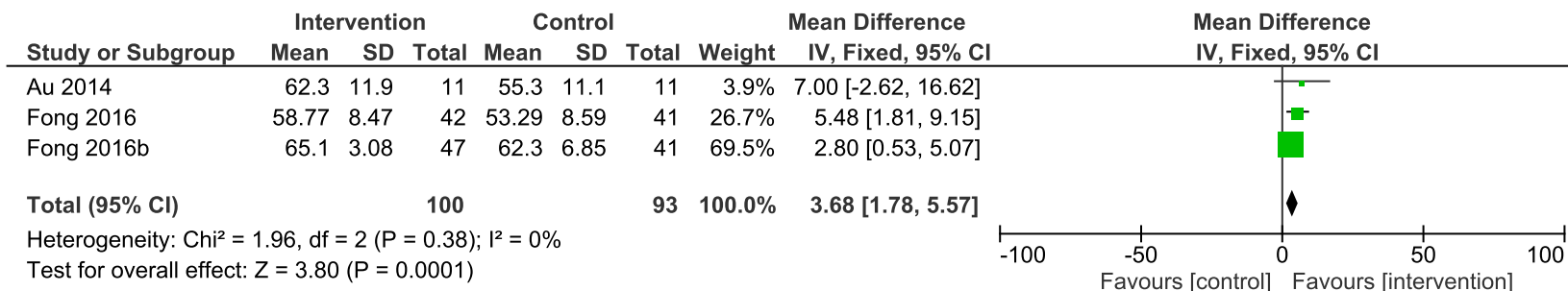
Results...

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MABC- Motor Proficiency



SOT- Postural Stability



NDD
[DCD]

Clinical Implications...

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Limited number of **low-quality studies**, however, **emerging evidence** is presented.



Physiotherapeutic interventions should centre around **exercise or PA** approaches

- supplemented with additional interventions within scope of practice



More high-quality evidence is needed within CAMHS services, specifically within **UK populations.**

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Dr Erin Byrd, Ulster University

**Exploring the confidence and attitudes of
physiotherapy students to work with people
experiencing mental ill health**



The Problem....

Current student curriculum and learning



Increased burden of mental ill health^{1, 2, 3}



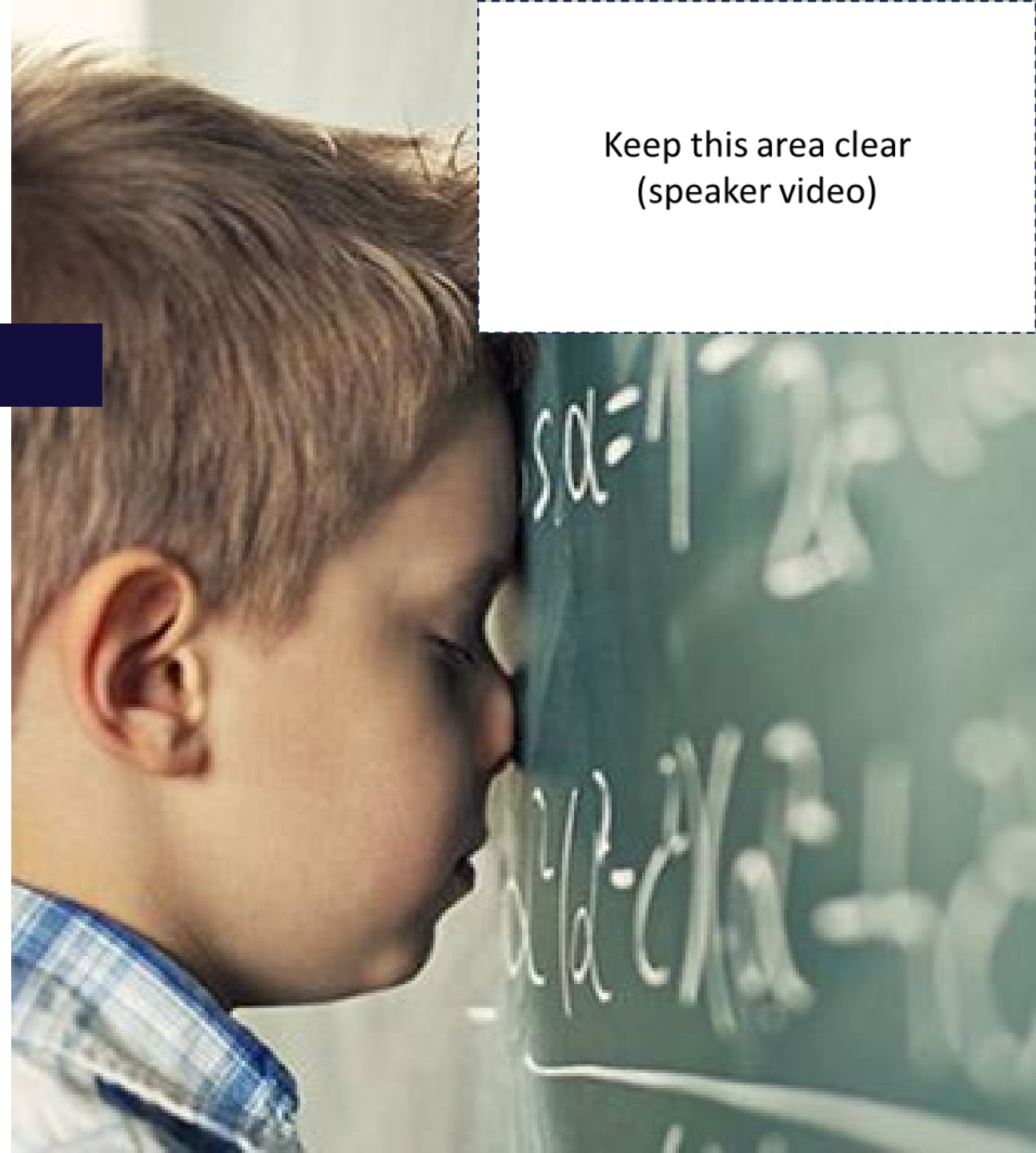
Lack of consideration of mental health in undergraduate health curricula⁴



Decreased perceptions/attitudes towards psychiatric populations⁵



Poor experience of patients accessing physiotherapy⁶



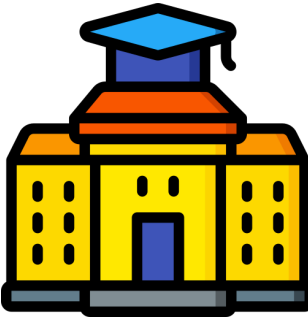
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Aim....



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What we did....



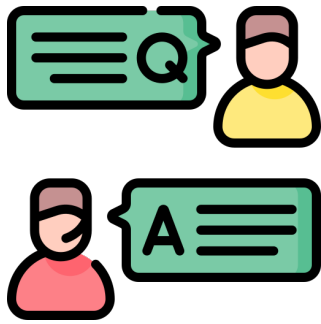
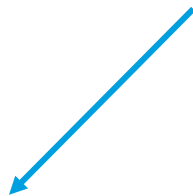
n=12



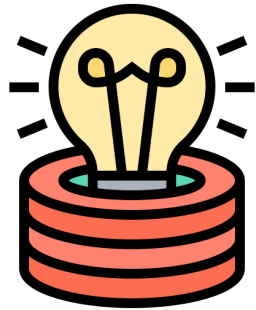
n=148



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n=21



What we found....

Key survey findings

- 74% <4 hours
- 11.4% mental health clinical placement
- Mean confidence(0-100) = 35.6 (\pm 21.9)

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What we found....

Key survey findings

- Predictors
 - time covering mental health on curriculum so far ($F=12.6, p=.001$)
 - perceived overall coverage within the curriculum ($F=35.8, p=.000$)

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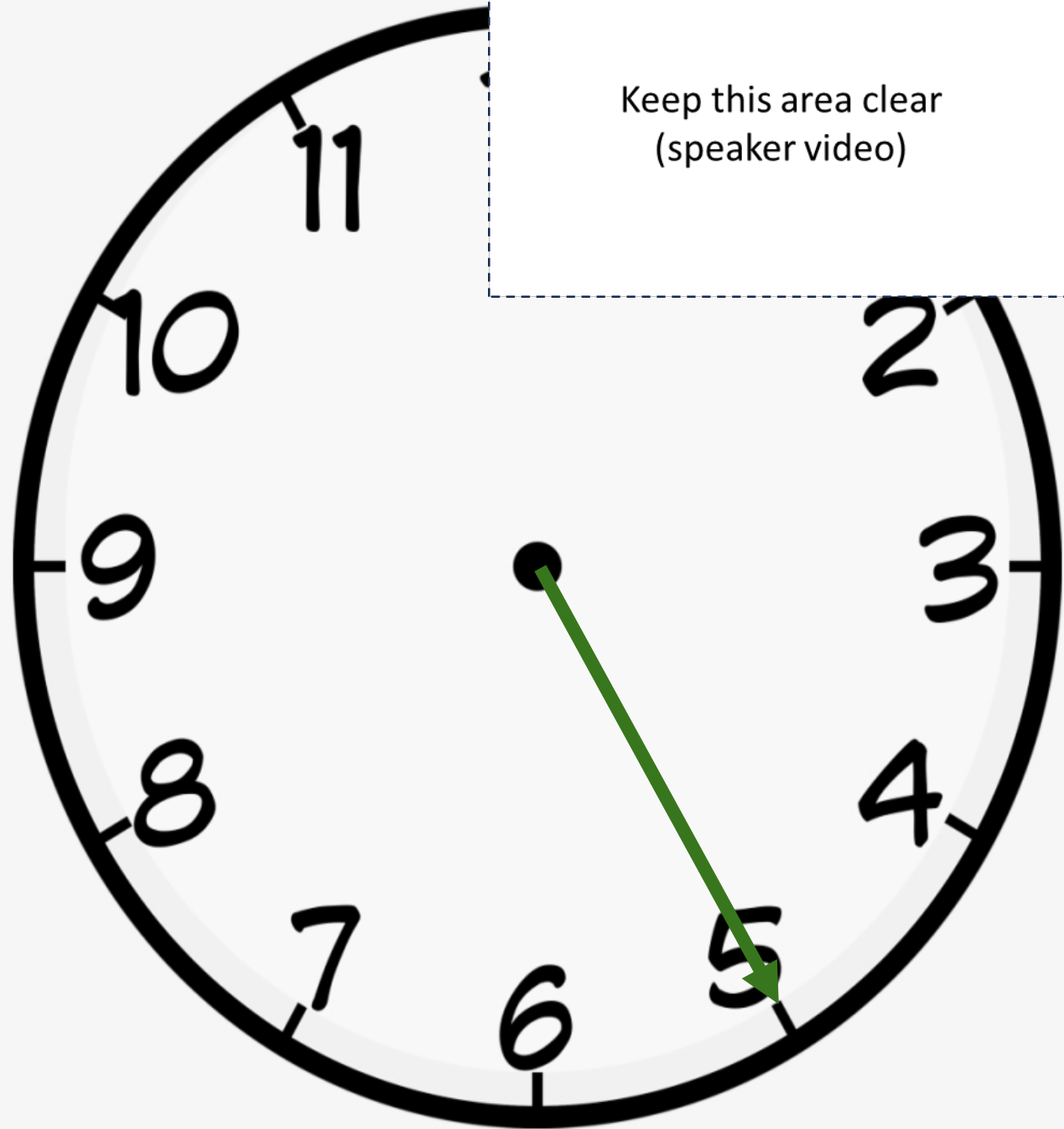


What we found....

Key survey findings

- 5 hours $t(97) = 2.71, p = .008$
- Specific Lectures $t(116) = -3.662, p = .000$
- Stigmatising attitude - **moderately positive**

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Qualitative findings....

Theme 1

Theme 2

Theme 3

Theme 4

Theme 5

Lack of confidence
addressing the mental
health of people
presenting at
physiotherapy

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"I think if I was faced with someone with like severe mental health issues, or if I was thrown into a mental health placement, I would not feel confident at all."



Qualitative findings....

Theme 1

Theme 2

Theme 3

Theme 4

Theme 5

Developing role clarity

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“we’d learn kind of like
where we would fit in... and
also learn to respect our
scope”



Qualitative findings....



Integration of physical and mental health

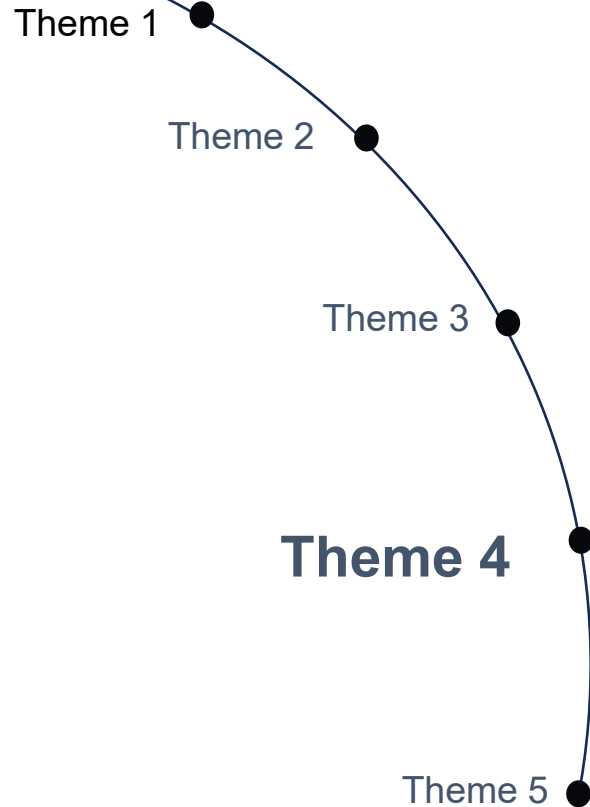
- Concern for the present
- Hope for the future

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"I definitely think it's not talked about very much in that it's a very underrepresented area in physiotherapy"



Qualitative findings....



Educating the future physiotherapy workforce

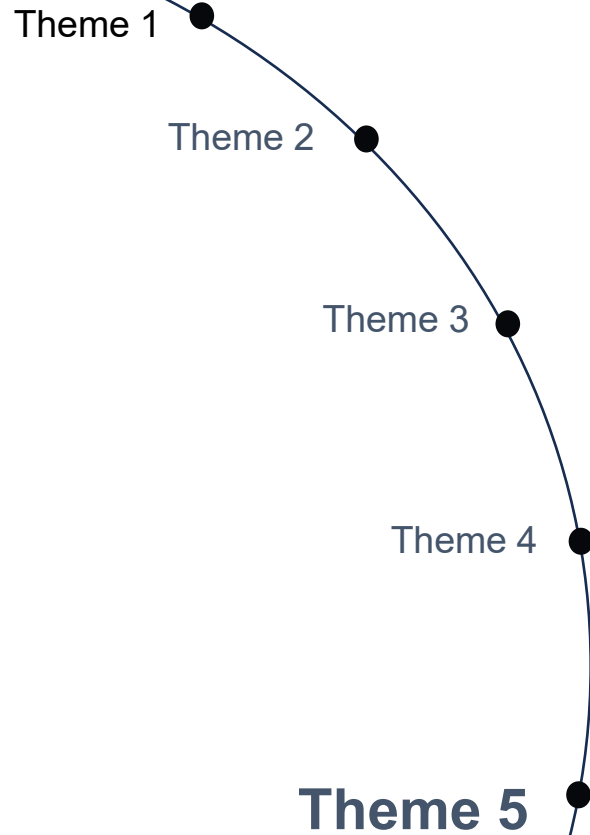
- There is no magic number
- Developing the curricula and pedagogical approaches

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"I think five hours for some like basic teaching and like discussions specifically around mental health would be good, but I think it needs to be woven into every single aspect of the training"



Qualitative findings....



Competence from experience

- Placement Exposure
- Life Experience

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"I definitely agree, because it's not only I feel now relatively comfortable working in a mental health setting...I feel a lot more confident"



Integration of Quantitative and Qualitative Findings....

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Limited confidence due to lack of awareness, education and experience



Inconsistencies across curricula in both quantity and content



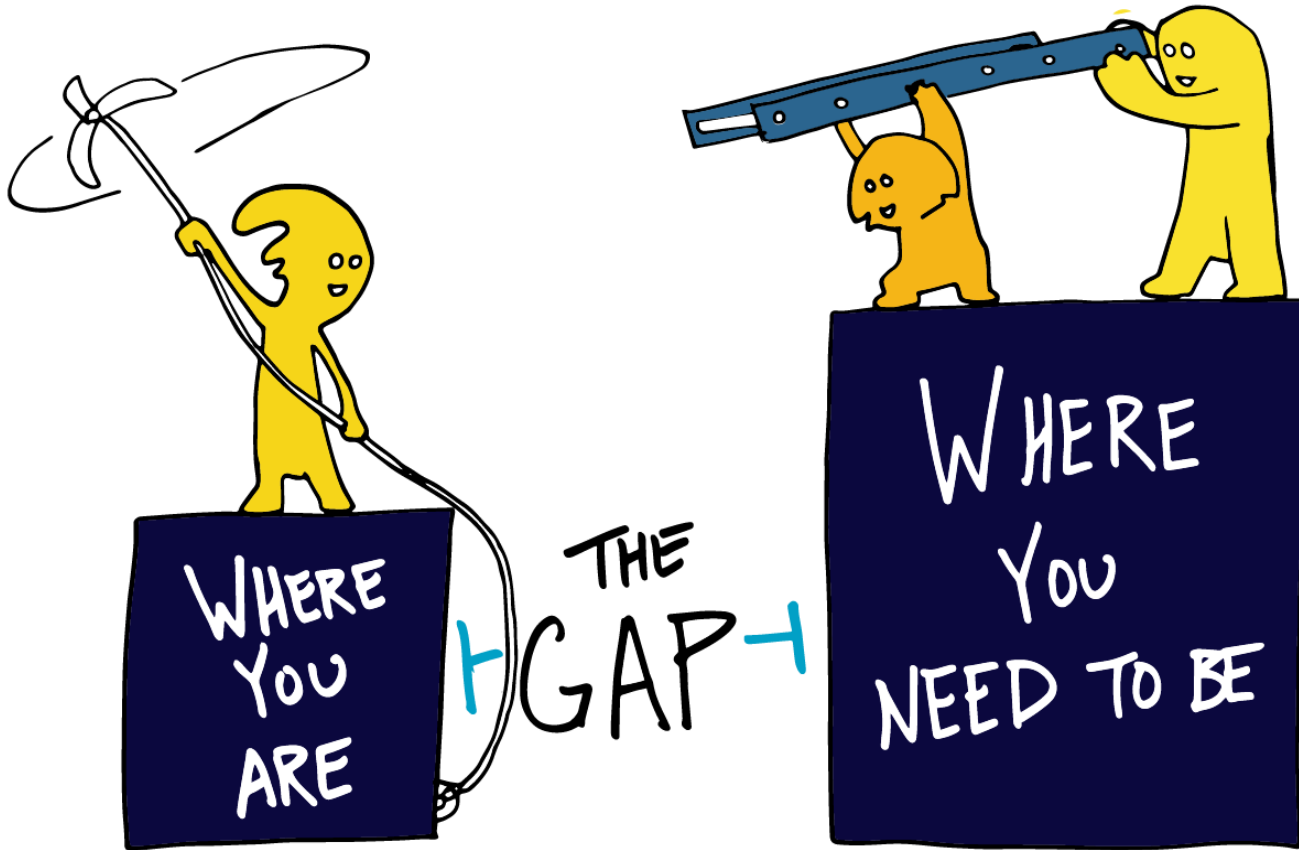
Pedagogical approaches should include lecture-based background and case-based/simulated experiences to improve attitudes and confidence

5

5 hours may support basic awareness, however, more would be beneficial for those going into MH specialism

What's Next?

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Chartered Physiotherapists in
Mental Health

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References Systematic Review

- Delargy, M. A., R. C. Peatfield, and A. A. Burt. "Successful rehabilitation in conversion paralysis." *Br Med J (Clin Res Ed)* 292.6537 (1986): 1730-1731.
- Gooch, Judith L., Roger Wolcott, and John Speed. "Behavioral management of conversion disorder in children." *Archives of Physical Medicine and Rehabilitation* 78.3 (1997): 264-268.
- Kanchiku, Tsukasa, et al. "Psychogenic low-back pain and hysterical paralysis in adolescence." *Clinical Spine Surgery* 30.8 (2017): E1122-E1125.
- Kanarek, Samantha L., et al. "Inpatient rehabilitation approach for a young woman with conversion hemiparesis and sensory deficits." *PM&R* 5.1 (2013): 66-69.
- Kasia, Kozłowska, et al. "Psychologically informed physiotherapy as part of a multidisciplinary rehabilitation program for children and adolescents with functional neurological disorder: physical and mental health outcomes." *Journal of Paediatrics and Child Health* 57.1 (2021): 73-79.
- Martínez-Sánchez, Sofía M., et al. "Feasibility and effect of a Pilates program on the clinical, physical and sleep parameters of adolescents with anorexia nervosa." *Complementary therapies in clinical practice* 39 (2020): 101161.
- Ness, Debra. "Physical therapy management for conversion disorder: case series." *Journal of Neurologic Physical Therapy* 31.1 (2007): 30-39.
- Noetel, Melissa, et al. "Exercise for the compulsive exercisers? An exploratory study in adolescent inpatients with anorexia nervosa." *Advances in Eating Disorders* 4.3 (2016): 264-276.
- Tsakona, Pelagia, et al. "The Synergistic Effects of a Complementary Physiotherapeutic Scheme in the Psychological and Nutritional Treatment in a Teenage Girl with Type 1 Diabetes Mellitus, Anxiety Disorder and Anorexia Nervosa." *Children* 8.6 (2021): 443.
- Au, Mei K., et al. "Core stability exercise is as effective as task-oriented motor training in improving motor proficiency in children with developmental coordination disorder: a randomized controlled pilot study." *Clinical rehabilitation* 28.10 (2014): 992-1003.
- Bayo-Tallon, Vanessa, et al. "Effectiveness of a Manual Therapy Program as Adjuvant Treatment for School-Age Children With Attention-Deficit/Hyperactivity Disorder: A Randomized Pilot Study." *SAGE Open* 10.4 (2020): 2158244020983023.
- Cheng, Yoyo TY, et al. "Neuromuscular training for children with developmental coordination disorder: A randomized controlled trial." *Medicine* 98.45 (2019).
- Fong, Shirley SM, et al. "A novel balance training program for children with developmental coordination disorder: a randomized controlled trial." *Medicine* 95.16 (2016).
- Fong, Shirley SM, et al. "Task-specific balance training improves the sensory organisation of balance control in children with developmental coordination disorder: a randomised controlled trial." *Scientific reports* 6.1 (2016): 20945.
- Hillier, Susan, Auburn McIntyre, and Leanne Plummer. "Aquatic physical therapy for children with developmental coordination disorder: a pilot randomized controlled trial." *Physical & occupational therapy in pediatrics* 30.2 (2010): 111-124.
- Hung, Winnie WY, and Marco YC Pang. "Effects of group-based versus individual-based exercise training on motor performance in children with developmental coordination disorder: a randomized controlled study." *Journal of rehabilitation medicine* 42.2 (2010): 122-128.
- Mills, Whitney, et al. "Does hydrotherapy impact behaviours related to mental health and well-being for children with autism spectrum disorder? a randomised crossover-controlled pilot trial." *International journal of environmental research and public health* 17.2 (2020): 558.
- Ward, Emily J., et al. "A range of service delivery modes for children with developmental coordination disorder are effective: A randomized controlled trial." *Pediatric Physical Therapy* 29.3 (2017): 230-236.
- Shields, Nora, and Nicholas F. Taylor. "A student-led progressive resistance training program increases lower limb muscle strength in adolescents with Down syndrome: a randomised controlled trial." *Journal of physiotherapy* 56.3 (2010): 187-193.
- Shields, Nora, et al. "A community-based strength training programme increases muscle strength and physical activity in young people with Down syndrome: A randomised controlled trial." *Research in developmental disabilities* 34.12 (2013): 4385-4394.
- Srinivasan, Sudha M., et al. "The effects of rhythm and robotic interventions on the imitation/praxis, interpersonal synchrony, and motor performance of children with autism spectrum disorder (ASD): a pilot randomized controlled trial." *Autism research and treatment* 2015 (2015).
- Khalili, Mohammad A., and Mark R. Elkins. "Aerobic exercise improves lung function in children with intellectual disability: a randomised trial." *Australian Journal of Physiotherapy* 55.3 (2009): 171-175.
- Yam, Timothy Tsz Ting, Man Sang Wong, and Shirley Siu Ming Fong. "Effect of Kinesio taping on electromyographic activity of leg muscles during gait in children with developmental coordination disorder: A randomized controlled trial." *Medicine* 98.6 (2019).

References

Student Confidence Study

1. Smith, L. E., Amlôt, R., Fear, N. T., Michie, S., Rubin, G. J., & Potts, H. W. W. (2021). Psychological wellbeing in the English population during the COVID-19 pandemic: a series of cross-sectional surveys.
2. Andersen, K. and Reeves, A., 2022. The cost of living crisis is harming mental health, partly because of previous cuts to social security. *bmj*, 377.
3. Daly, Michael, Angelina R. Sutin, and Eric Robinson. "Longitudinal changes in mental health and the COVID-19 pandemic: Evidence from the UK Household Longitudinal Study." *Psychological medicine* 52.13 (2022): 2549-2558.
4. Dandridge, T., Stubbs, B., Roskell, C., & Soundy, A. (2014). A survey of physiotherapy students' experiences and attitudes towards treating individuals with mental illness. *International Journal of Therapy and Rehabilitation*, 21(7), 324-330.
5. Probst, M., & Peuskens, J. (2010). Attitudes of Flemish physiotherapy students towards mental health and psychiatry. *Physiotherapy*, 96(1), 44-51.
6. Hemmings, L., & Soundy, A. (2020). Experiences of physiotherapy in mental health: An interpretative phenomenological analysis of barriers and facilitators to care. *Physiotherapy*, 109, 94-101.