

Promoting participation to improve mental health outcomes in children aged 11-13 years

This article is a summary of the paper published in CAMH - Tokolahi, E., Vandal, A. C., Kersten, P., Pearson, J., & Hocking, C. (2018). Cluster-randomised controlled trial of an occupational therapy intervention for children aged 11-13 years, designed to increase participation to prevent symptoms of mental illness. *Child and Adolescent Mental Health*. <https://doi.org/10.1111/camh.12270>

Children's mental health is a growing focus in health promotion and the impact of occupational therapy on mental health outcomes for children has been largely unexplored to date. A robust meta-analysis of 41 prevalence studies identified a worldwide prevalence of diagnosed mental health conditions in childhood and adolescence of nearly 18% ([Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015](#)). Putting this into context, when compared to the prevalence of other childhood chronic health conditions, such as obesity (16.8%) ([Ogden, Carroll, Curtin, Lamb, & Flegal, 2010](#)) and asthma (8.5%) ([Moorman et al., 2007](#)), there is a clear need to prioritise children's mental health and wellbeing ([Friedberg, Crosby, & Friedberg, 2000](#); [Polanczyk et al., 2015](#)). Further evidence suggests there are even more children who are clinically impaired by mental health conditions who go undiagnosed and untreated. It is suggested that in order to meet the needs of this population, health services should be prepared to support up to 30% of all children ([Polanczyk et al., 2015](#); [Puolakka, Kiikkala, Haapasalo-Pesu, & Paavilainen, 2011](#); [Rijlaarsdam et al., 2015](#)).

The occupational therapy intervention evaluated was developed in response to a local need for school-based interventions for children who were not eligible for secondary mental health services. Current treatments available are largely informed by Cognitive Behavioural Therapy and focus primarily on modifying children's internal cognitions with unclear effect on functional outcomes. Occupational therapists can promote functional outcomes, in particular, participation, through a focus on health and wellbeing that enables children to design and build health-promoting routines and make healthy occupational choices. Kia Piki te Hauora: Uplifting our Health and Wellbeing© was developed in response to the above. This programme draws on principles of human occupation and aims to reduce symptoms of anxiety and depression and improve self-esteem and participation in children aged 11-13 years who don't have access to specialist services. The intervention is designed to use engagement, in developmentally appropriate activities, to promote mental health and wellbeing. Students are enabled to understand the relationship between what they do and how they feel/think; to understand how activities in which they engage influence their identity, self-concept, health and wellbeing; and to practice and develop strategies for overcoming difficult emotions. Students apply this knowledge in building and designing healthy routines, behaviours and habits in their day-to-day life that support self-esteem and participation.

Kia Piki te Hauora: Uplifting our Health and Wellbeing© was evaluated in a cluster-randomised controlled trial to examine the effectiveness of this preventative occupational therapy group intervention. Fourteen schools (clusters), equating to 151 children, were randomised to the intervention or to a waiting list group. We examined outcomes on completion of the intervention, as well as the sustainability of any improvements after a follow-up period of 8-9 weeks. Outcomes measured were anxiety symptoms (primary), depression symptoms, self-esteem, participation and wellbeing. Data from intervention participants were compared to waitlist-control participants who later went on to receive the intervention: resulting in the crossover phase of the trial.

This trial found some promising results: there was a significant positive effect of the intervention on child-rated satisfaction with their occupational performance and a significant reduction in teacher-rated child anxiety. No evidence was found to support the effect of the intervention on anxiety and depression symptoms, self-esteem and wellbeing. However, there was evidence that the child-rated anxiety and depression symptoms 8-9 weeks after the intervention were no worse and possibly improved as compared to immediately post-intervention.

This is the first known cluster-randomised controlled trial to investigate an occupational therapy intervention promoting emotional wellbeing in a non-clinical sample of children. No new evidence was generated to support the theory that participation in meaningful, positive occupations can impact on mental health symptoms. However, there were promising indicators that participation in meaningful occupations and routines, that are explicitly linked to emotional wellbeing, can improve child satisfaction in their occupational participation and trigger a reduction in children's anxiety levels as perceived by teachers.

Strengths of the study included a fully pre-specified statistical analysis plan, robust efforts to minimise biases and sufficient sample size. A possible explanation for the non-significant findings could have been that baseline anxiety levels were low, creating a floor effect – with limited scope for level of symptoms to reduce. Having a short follow-up period and low parent and teacher response rates also limited findings, particularly given the preventative focus. Collecting qualitative data would have provided the opportunity to explore participant's experiences, associated with participating in the intervention, to help determine which elements of the intervention were most and least effective.

There is a need to conduct more multi-faceted research to explore appropriate outcome measures in relation to children's participation; to explore participant experiences; and to understand more about how to positively impact on participation, by enabling children to design and build health-promoting routines and make healthy occupational choices. Recommendations are made to redesign the intervention as an embedded intervention in the classroom, so it can be co-taught by teachers; this would create increased opportunities for the children to practice the skills in the context of their everyday lives ([Bean, Kendellen, & Forneris, 2016](#); [Blackwell & Dunn, 2016](#)). Furthermore, including parents in the intervention would be expected to increase transferability of knowledge into home and community environments.

[Read the full paper report for more details.](#)

References

- Bean, C., Kendellen, K., & Forneris, T. (2016). Moving beyond the gym: Exploring life skills transfer within a female physical activity-based life skills program. *Journal of Applied Sport Psychology*, 28(3), 274-290. doi:10.1080/10413200.2015.1124155
- Blackwell, A. L., & Dunn, W. (2016). Active ingredients for an embedded intervention within the early childhood classroom. *Journal of Occupational Therapy, Schools, & Early Intervention*, 9(2), 125-141. doi:10.1080/19411243.2016.1165003

Friedberg, R. D., Crosby, L. E., & Friedberg, B. A. (2000). Ward I'm worried about the beaver: Issues in early identification and intervention with children experiencing depression and anxiety. *Journal of Cognitive Psychotherapy, 14*(1), 25-35.

Moorman, J. E., Rudd, R. A., Johnson, C. A., King, M., Minor, P., Bailey, C., . . . Akinbami, L. J. (2007). National surveillance for asthma: United States, 1980-2004. *Morbidity and Mortality Weekly Report. Surveillance Summaries, 56*(8), 1-54.

Ogden, C. L., Carroll, M. D., Curtin, L. R., Lamb, M. M., & Flegal, K. M. (2010). Prevalence of high body mass index in US children and adolescents, 2007-2008. *JAMA: The Journal of the American Medical Association, 303*(3), 242-249. doi:10.1001/jama.2009.2012

Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry, 56*(3), 345-365. doi:10.1111/jcpp.12381

Puolakka, K., Kiiikkala, I., Haapasalo-Pesu, K.-M., & Paavilainen, E. (2011). Mental health promotion in the upper level of comprehensive school from the viewpoint of school personnel and mental health workers. *Scandinavian Journal of Caring Sciences, 25*(1), 34-44. doi:10.1111/j.1471-6712.2010.00787.x

Rijlaarsdam, J., Stevens, G. W. J. M., van der Ende, J., Hofman, A., Jaddoe, V. W. V., Verhulst, F. C., & Tiemeier, H. (2015). Prevalence of DSM-IV disorders in a population-based sample of 5- to 8-year-old children: The impact of impairment criteria. *European Child and Adolescent Psychiatry, 24*(11), 1339-1348. doi:10.1007/s00787-015-0684-6