**Title**

Physical activity and risk of behavioural and mental health disorders in ACT Kindergarten children

**Author and affiliations**

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**Background**

Physical activity is important for preventing chronic disease and maintaining good mental health, for children as well as adults. Many Australian children do not meet the guidelines of 60 minutes of daily activity. General Practitioners are well-placed to identify children at higher risk of mental illness and promote protective behaviours.

**Aims**

To explore the association between physical activity and risk of behavioural and mental health disorders in ACT Kindergarten children.

**Method**

Cross-sectional analysis of the 2014-2016 ACT Kindergarten Health Check (n=15,146), including data on parent-reported physical activity and the Strengths and Difficulties Questionnaire (SDQ) with data linkage to socioeconomic status indicators.

**Results**

Almost two-thirds (62%) of children met the physical activity guidelines, with higher activity reported among Aboriginal and Torres Strait Islander children, boys, and those from the most disadvantaged schools.

Overall, 5% of children were at high risk for behavioural or mental health disorders, with the highest proportion among the same groups reporting high levels of physical activity. Multivariate logistic regression found sex (Odds Ratio (OR) 0.5), Aboriginal and Torres Strait Islander status (OR 2.4), and socioeconomic disadvantage (OR 1.9) were significant for predicting risk of clinically significant problems based on the SDQ (p<0.05). There was no significant association with average daily exercise.

**Conclusion**

Children from disadvantaged schools and Aboriginal and Torres Strait Islander children were at the greatest risk of behavioural and mental health disorders despite having the highest levels of physical activity. Awareness of children most at risk can help GPs be alert to vulnerable patients.