

Breakfast skipping among children and adolescents in South Australia: A snapshot of recent research



Background

Access to adequate nutrition is a basic human right for all children and adolescents. A quality breakfast, filled with calcium, folate, and fibre, provides children and adolescents with the energy and nutrients they require for optimal growth, development, and cognitive function.

Breakfast skipping is associated with a number of other unhealthy behaviours, such as dieting, low physical activity, and smoking, all of which can negatively impact the health and wellbeing of children and young people. Further, studies have found that students who skip breakfast experience poorer academic performance and educational outcomes. However, the pathways through which breakfast skipping impacts these outcomes are not well understood.

Estimates of the percentage of children and adolescents who skip breakfast varies across countries and can depend on how breakfast consumption is measured. A review of research from 33 countries showed that most studies reported

between 10-30% of children and adolescents aged 2-18 years skip breakfast. Research focused on breakfast skipping in Australia has been limited with mixed findings.

A popular strategy to help reduce breakfast skipping in the UK and US and more recently in Australia is school breakfast programs, providing students with free or low-cost breakfast. However, we need a better understanding of how common breakfast skipping is amongst Australian children, as well as how skipping breakfast relates to experiences at school, to ensure these programs benefit the children who need it most.

Aim

The aim of this research snapshot is to summarise recent research that has focused on breakfast skipping among children and adolescents in South Australia. Specifically, we summarise findings from two studies that have explored the percentage of children and adolescents who skip breakfast, how breakfast skipping varies for different children (e.g., boys and girls, older and younger students), and the association between breakfast skipping and school engagement.

Methods

Who was involved?

Both research studies used data collected as part of the Wellbeing and Engagement Collection (WEC) in 2019. The WEC is an annual census, conducted by the South Australian Department for Education, which measures four domains of student wellbeing and engagement: Emotional wellbeing, Engagement with School, Learning Readiness and Health and Wellbeing out of School.

Participants included 71,390 students in Grades 4 to 12 from government (public) schools in South Australia. A slightly smaller sample of 61,825 students, across Grades 4 to 12, was used for analysis in the second research study exploring school engagement.

What information was collected?

In both studies, breakfast consumption was measured by asking students 'How often do you eat breakfast?'. Students were then categorised into the three groups shown in *Figure 1*.

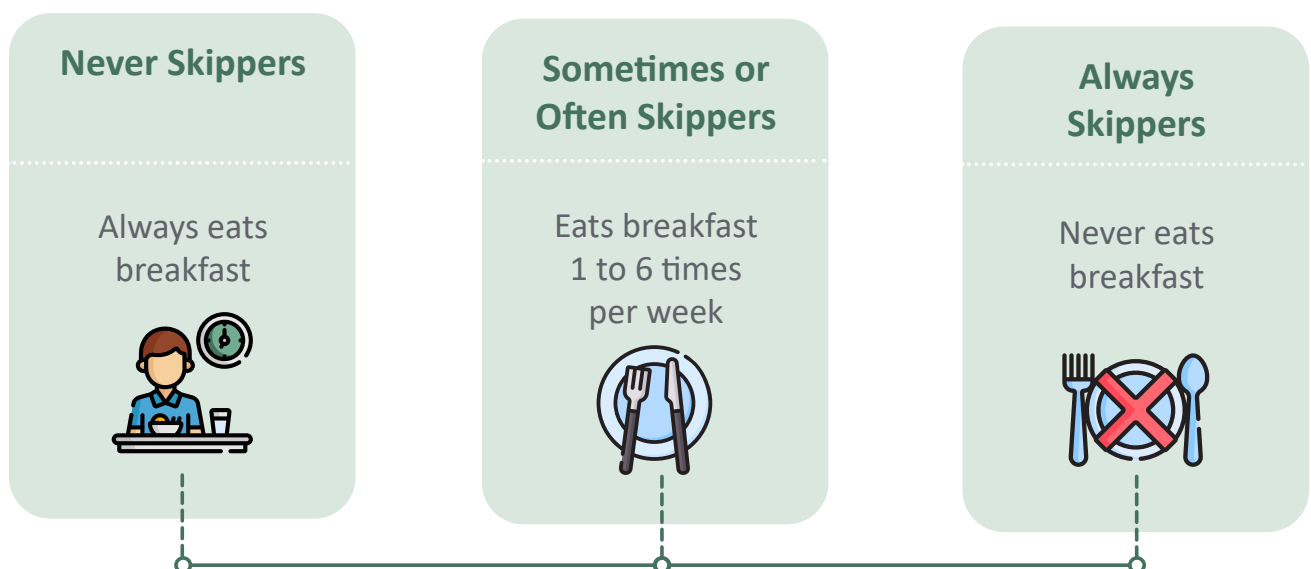


Figure 1 – Three categories of breakfast consumption

Both studies also included information about students such as their age, grade level, gender, place of residence and the socioeconomic status of the community they lived in.

Study one: How common is breakfast skipping?

First, the prevalence of breakfast skipping among the total sample was calculated. Next, breakfast skipping among different groups of students was explored, including prevalence by gender, school grade, socioeconomic status, and place of residence (e.g., cities vs remote areas).

Study two: Are students who skip breakfast skipping less engaged at school?

Three measures of school engagement were used in study two, as shown in Figure 2.

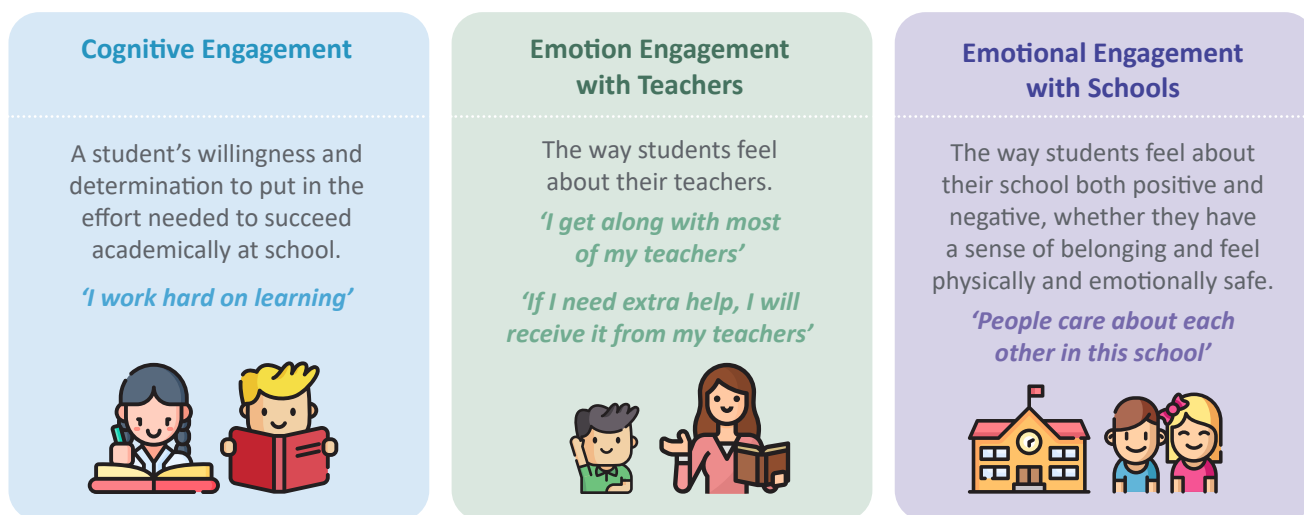


Figure 2 – Definitions and item examples of the three measures of school engagement

Regression analyses were used to explore the relationship between breakfast skipping and school engagement, after adjusting for factors that are likely to influence this relationship, including sociodemographic characteristics (age, gender, parental education, socioeconomic status, and place of residence) as well as students' overall health, sleep, sadness, and worries.

Key findings

How common is breakfast skipping?

Results show that breakfast skipping among children and adolescents in South Australia is more common than previous studies have suggested. Specifically, one in three students (35.4%) reported sometimes or often skipping breakfast, and one in ten students (9.6%) reported always skipping breakfast.

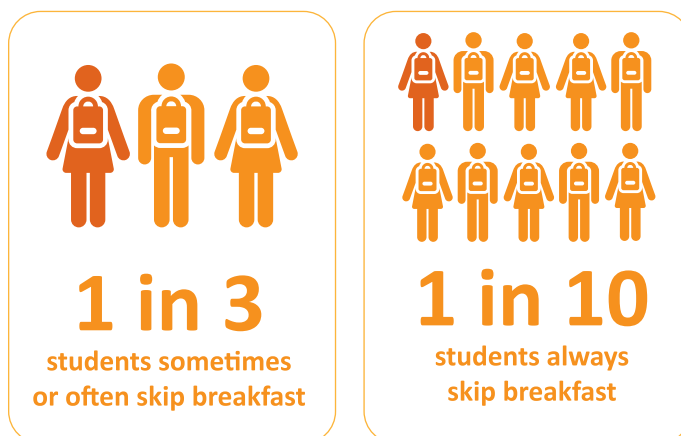
Is breakfast skipping more common for some children than others?

Breakfast skipping was more common among females, students in senior grades, students living in socioeconomically disadvantaged communities, and students from regional and remote areas of South Australia. Adolescent girls were most likely to skip breakfast, with 1 in 5 female students in Grades 10 to 12 skipping breakfast every day.

Why do students skip breakfast?

Previous research has reported the most common reasons for skipping breakfast among children and adolescents include:

- Not feeling hungry in the morning
- Not having enough time
- Do not enjoy eating breakfast
- Weight control / dieting



Is breakfast skipping associated with school engagement?

Overall, students who skipped breakfast (sometimes or always) reported lower levels of cognitive engagement, emotional engagement with teachers, and emotional engagement with school when compared with students who never skipped breakfast (Figure 3).

These differences remained after controlling for variables that can have an influence both breakfast skipping and school engagement, such as gender and physical health.

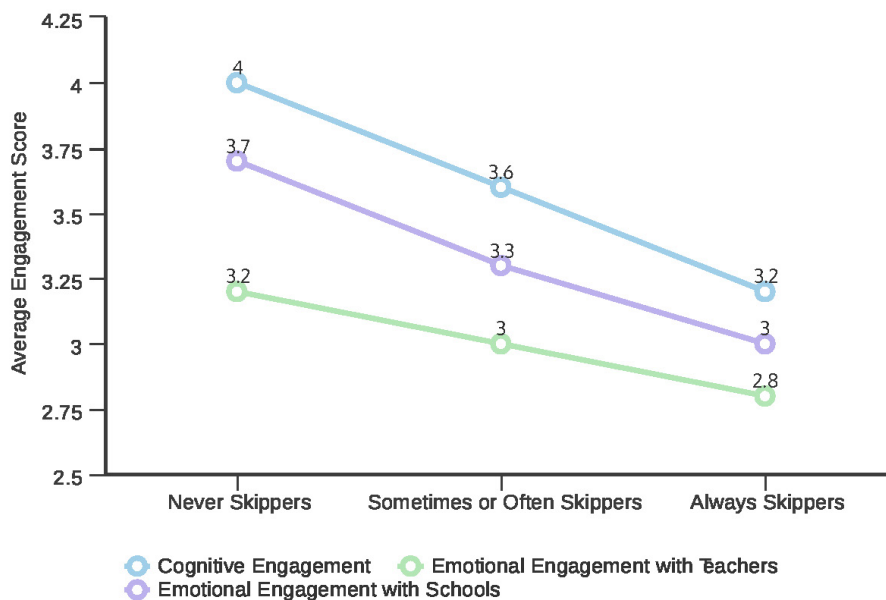


Figure 3 – Average engagement scores by breakfast skipping category

Similar to previous studies, our recent research also found that students who skipped breakfast had poorer physical health and wellbeing than students who ate breakfast every day. Specifically, students who always skipped breakfast were more likely to report:

- Less nights of quality sleep
- Poorer overall health
- Higher levels of sadness and worry

One possible explanation for why breakfast influences school outcomes is that eating breakfast promotes glucose uptake. Glucose is the brain's main fuel source and provides energy to concentrate at school. Therefore, if children arrive at school hungry with low energy levels, they may be less cognitively and emotionally engaged. For this reason, the quality of breakfast is also important. For example, evidence shows that a healthy breakfast (e.g., low glycaemic index foods such as wholegrain bread, fruit, or yoghurt) can sustain blood glucose levels for longer periods, which can improve attention at school, compared with skipping breakfast or eating an unhealthy breakfast.

Implications

Recent research has confirmed that breakfast skipping is common among South Australian school students, with 1 in 3 skipping breakfast sometimes or often, and 1 in 10 skipping breakfast every day. It has also shown that students who skip breakfast are less engaged at school, compared to their peers who eat breakfast every day. This link between breakfast and school engagement may be one mechanism through which breakfast consumption influences school outcomes such as academic achievement.

School breakfast programs are one of the key approaches to reducing breakfast skipping among school aged children. In recent years, not-for-profit organisations such as KickStart for Kids, Red Cross and Foodbank have been providing free breakfast across Australian schools, in an attempt to combat poverty and food insecurity. Currently, there is

limited understanding of how many students use these programs, and how successful they are at increasing breakfast consumption, both internationally and in Australia.

While increasing participation rates in school breakfast programs is one strategy to improve breakfast consumption among students, findings suggest alternative supports are required to ensure all children and adolescents regularly eat breakfast. To be effective, strategies to promote breakfast consumption need to be informed by further investigations into why certain groups of students skip breakfast and what supports will be helpful to promote breakfast consumption. A lack of response from policy makers and educators to identify ways to improve breakfast consumption represents a lost opportunity for early intervention initiatives.

Supports to be explored in future include:

Health promotion: It is anticipated that with better understanding of the importance of breakfast among children and adolescents, will come increased consumption. The Australian Curriculum includes a food and nutrition component in Health and Physical Education. Exploration of the information delivered in this teaching, with the aim to better promote student understanding of the importance of nutrition for physical health, wellbeing, and academic performance, could be a focus for future research. Further, additional interventions that seek to address other reasons behind breakfast skipping, such as dieting and body image, could also be explored.

Reducing stigma: While students from socioeconomically disadvantaged households and communities are more likely to skip breakfast, food insecurity is not the only factor influencing breakfast skipping. School breakfast programs need to be delivered in a way that does not introduce stigma. For example, 'grab and go' breakfast options that are available for all students to access. Alternatively, breakfast could be incorporated into the morning classroom routine for all students. Novel breakfast provision strategies such as these have been explored in the US, and similar options could be trialled in Australia.

Details of research paper

Sincovich, A., Moller, H., Smithers, L., Brushe, M., Lassi, Z.S., Brinkman, S.A., & Gregory, T. (2022). Prevalence of breakfast skipping among children and adolescents: A cross-sectional population level study. *BMC Pediatrics*, 22 (article no 220). doi: 10.1186/s12887-022-03284-4

Moller, H., Sincovich, A., Gregory, T., & Smithers, L. (2021). Breakfast skipping and cognitive and emotional engagement at school: A cross-sectional population-level study. *Public Health Nutrition*, 1-10. doi:10.1017/S13689800210048703

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- Help shift focus from the historical delineation between health and education services to an integrated approach with a focus on child development
- Build capacity amongst public sector staff and academic researchers to design, undertake and use research to improve the environments in which children live and the service systems which support families
- Attract funding for shared priorities for research that leads to improved developmental, education, health, and wellbeing outcomes for children

The Fraser Mustard Centre brings forward-thinking policy makers and world class child health researchers. It reflects a shared view of policies and outcomes for children and young people. The Centre is a unique collaboration between two organisations passionate about making a difference.

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