



**SCHS**

Sunraysia Community  
Health Services

What is the impact of school breakfast programs  
on children's health and wellbeing beyond  
nutrition?

A Literature Review

Bonita Leighton | Bachelor of Human Services and Master of Social Work  
| Sunraysia Community Health Services | La Trobe University



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## Introduction

In 2013, Healthy Together Mildura initiated the Mildura Region School Breakfast Partnership (MRSBP) in which eight schools registered in response to a growing awareness that students were frequently going to school without eating breakfast. The mission of the initiative is to provide every child in our community with the opportunity to have a nutritious start to the day. This Partnership currently has 17 schools registered, as of 2017.

The Partnership adopts a coordinated and collaborative approach to breakfast programs in the Sunraysia region, in which schools jointly contribute to, and share from, a central pool of funds as well as support each other by sharing information, ideas and insights into getting the most out of the program. This approach ensures all schools have the same opportunity to host a breakfast program, eliminates competition between schools for funds, provides practical locally relevant advice, and encourages whole of community support for the partnership.

The Healthy Together Mildura team track the number of breakfasts being served per week however, is currently relying on anecdotal evidence to demonstrate any outcomes that may be present other than nutrition. The review has excluded nutrition due to the fact that it is widely accepted that nutrition is a benefit. Benefits that fit in with a social model of health in accordance with Sunraysia Community Health Services (SCHS) philosophy also needs to be considered. Currently the anecdotal evidence suggests that the program boosts student engagement and wellbeing. This paper will explore literature that provides empirical evidence needed to support the continuation of the Mildura Region School Breakfast Program. The literature explored in this review will answer the research question *‘what is the impact of school breakfast programs on children’s health and wellbeing beyond nutrition?’*

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## Aim

Anecdotal evidence found through the Mildura Region School Breakfast Partnership 2016-2017 evaluation, which included surveys and interviews with school principals; school breakfast program coordinators; teachers; parents and students, include greater student engagement, better learning outcomes and improved school attendance. This paper aims to provide empirical evidence by means of a literature review of current research conducted on the area of school breakfast programs and outcomes; and to explore and provide evidence that running a school breakfast program has additional benefits other than nutrition. This paper was commissioned by Sunraysia Community Health Services in partnership with La Trobe University, to be undertaken by a third year social work student on placement.

## Definitions

*Academic Performance/ Achievement* is defined by Steinmayr, Meibner, Weldinger, and Wirthwein (2017) as “the extent to which a person has accomplished specific goals”, especially when academic achievement is associated with education facilities.

*Children* for the purpose of this paper will be defined as those under the age of eighteen, taken from the Convention on the Rights of the Child (1989).

*Cognitive Function* is defined by Miller and Gazzaniga (1984) as an internal psychological process that includes “learning, memory, and attention, as well as perception, language, intelligence, and reasoning” (cited in Bushnell & Tilson, 2010).

*Universal* is defined by Oxford University Press as ‘relating to or done by all people or things in the world or in a particular group; applicable to all cases’ (2017).

*Wellbeing* will be defined as “The state of being comfortable, healthy, or happy” (Oxford University Press, 2017).

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## Methodology

In order to complete this literature review an ethics approval (see appendix 1.1) needed to be obtained. This was in order to be able to fulfil requirements of La Trobe University before speaking to stakeholders of the MRSBP to compare quantitative and qualitative data. Mixed method data was gathered through literature reviews and qualitative data was collected through a semi-structured focus group and semi-structured one-on-one interviews with stakeholders.

## Inclusion and Exclusion Criteria

**1.1. Inclusions:** For the purpose of this paper peer reviewed literature was chosen as the main source of information as it was easily accessible and sourcing peer reviewed literature was within the time constraints of this project. A ten year range, 2007-2017, was placed on search terms, as articles older than ten years may not be relevant. Due to the limited data based on Australian research International articles needed to be sourced.

**1.2. Exclusions:** Grey literature was excluded in this particular review. Nutrition has been excluded at the request of Sunraysia Community Health Services. However, nutrition is briefly touched upon because it was a reoccurring theme even in papers that did not focus primarily on nutrition.

Initially countries that were comparable to Australia in terms of housing, education and economy were going to be used to compare the breakfast program within context. Using the OECD Better Life Index (2017) website compared different country's education, health and income. From these the results showed the most similar in these areas were Iceland, Netherlands, Sweden and Switzerland. Upon exploration of databases there was no

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corresponding literature related to those specific countries therefore, peer reviewed literature from any country was included.

## Method

This literature review was undertaken using a number of databases which included La Trobe General Journal, ProQuest Central, Informit Complete, Trove and Google Advanced. Using these searches 15 academic articles were deemed relevant to the question ‘what is the impact of school breakfast programs on children’s health and wellbeing beyond nutrition?’ Upon reading these articles two more were found irrelevant and were dismissed leaving a total of 13 articles included in this review.

Key words and phrases used included “breakfast club Australia”, “evaluating breakfast programs”, “benefits of school breakfast programs AND Australia”, “school breakfast program AND health and wellbeing AND evaluation AND Australia NOT obesity NOT nutrition NOT food security”, “school breakfast program NOT obesity NOT nutrition NOT food security”, “breakfast AND youth AND schools”, “school breakfast AND outcomes”, “school breakfast”, “breakfast AND mental health AND children”, “breakfast AND behaviour AND children”, and “school breakfast programs AND health and wellbeing AND Australia NOT obesity NOT nutrition NOT food security”.

As a result of these searches 15 articles were found to be relevant to the research question. These articles were read and analysed and as a result two more articles were dismissed due to irrelevance.

For further explanation of search results refer to the appendix 1.2.

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## Expected outcomes

Due to anecdotal evidence gathered from the MRSBP evaluation and, a brief look while gathering literature, it was expected that there would be evidence of positive correlation between school breakfast programs and student engagement and wellbeing. There is evidence that breakfast in general is a positive contributor to adding to children's nutritional needs, regular eating habits, consistent energy intake, healthy food choices and exercise patterns (Affenito, 2007). Although nutrition was excluded from this study Affenito (2007) states that breakfast provides important nutrients for growing children and those that miss breakfast are reducing their intake of micronutrients (p. 565). The school breakfast programs have been shown to increase children's daily nutrient intake (p. 565). If daily nutrient intake was being met this would allow room to observe other benefits that may be visible from school breakfast programs. Engels and Boys (2008) link the benefits of healthy breakfast intake with increased attention, improved academic performance, increased retention of information, reduced absenteeism, social skills increase and increased self esteem. It was expected that review of literature would provide evidence that supports the benefits of school breakfast programs on children's school attendance, academic performance, cognitive function, and psychosocial factors. It is likewise expected that through focus group and individual interviews that similar results will be found that is backed up by empirical evidence.

## Results and Discussion

Overall 13 articles were explored and discussed. Upon reading the chosen articles there were six main themes that emerged. These themes were school attendance, academic performance, cognitive function, psychosocial factors, breakfast verse no breakfast, and behaviour. Each theme will contain both results and discussion and the final section will contain an analysis of the results from the semi-structured focus group and one-on-one interviews.

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## 1.1.School Attendance

School attendance has been measured many times as a way to evaluate school breakfast programs. This research found four articles that touch on attendance at schools (Anzman-Frasca, Djang, Halmo, Dolan & Economos, 2014; Frisvold, 2015; Leos-Urbel, Schwartz, Weinstein & Corcoran, 2013; Mhurchu, Gorton, Turley, Jiang, Michie, Maddison & Hattie, 2012). When discussing all four articles a mixed review was found as to whether school breakfast programs had an impact on student's school attendance. Mhurchu et al. (2012) conducted a study using a stepped-wedge, cluster randomised trial on 16 schools for the period of one full school year. This study revealed that a free school breakfast program did not impact school attendance unless a sensitivity analysis was applied. This sensitivity analysis was conducted on children who attended the school breakfast program 50 per cent of the time it was available due to irregular use having a possible effect on the results of attendance. The results of this sensitivity analysis showed that among this subgroup there was an increase in school attendance rates; when the school breakfast program was operating. This result was also found by Anzman-Frasca et al. (2014) who conducted a quasi-experimental study using propensity score weights. Attendance rates were measured across the 2012-2013 academic school year. Attendance was measured by looking at the total of enrolled student-days and dividing that by total attended student-days. This showed that, compared to schools that did not offer a school breakfast program, there was a significant positive effect on attendance rates for year levels two through to six. It was found that this increase in attendance amounted to 76 additional days of attendance, per grade per month, compared with schools that did not offer a school breakfast program. The Victorian State Government Department of Education and Training (2017) draws emphasis to the importance of attendance and school completion and states that by attending school, children learn crucial social skills, coping mechanisms, resilience, team work and communication skills and

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important knowledge and values. As a result those children who regularly attend school have greater employment opportunities, better health outcomes, and earn higher incomes (Victorian Government, 2017). Leos-Urbel et al. (2013) used a difference-in-difference estimation strategy to find what impacts would come out of making New York City's school breakfast program universal. Likewise, Frisvold (2015) used the same method of a difference-in-difference estimation strategy. From this exploration it was found that the school breakfast program is providing an incentive for parents to encourage their children to attend and be on time for school. Both papers agreed that students arriving to school on time to participate in the school breakfast program would likely make overall absenteeism decrease. Participating in a universal school breakfast program has also been shown to have a positive correlation between fewer school absences and arriving to school on time. Frisvold (2015), in particular, noted that increase in nutrition could have the follow-on effect of decreasing absences due to illness. Although nutrition was not a focus of this paper both Mhurchu et al. (2012), Frisvold (2015) and Leos-Urbel et al. (2013) have noted that nutritional benefits as well as attendance are generating the biggest impact on children who are disadvantaged. All four articles agree that increased attendance associated with school breakfast programs does benefit academic performance.

## **1.2. Academic Performance**

Academic achievement is an outcome that has been identified as being impacted by school breakfast programs though anecdotal evidence gathered from Healthy Together Mildura (2013). Adolphus, Lawton and Dye (2013) reviewed 36 articles to find the impacts of school breakfast programs on academic performance. Adolphus et al. (2013) found many correlations that support the impact of school breakfast programs on academic achievement. These are linked to the subjects Science, English, Chemistry and Social Science, Math and

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reading scores, with the highest results visible in Math. These grades were impacted not only by consumption of breakfast at school but also by the foods which were consumed during breakfast. These outcomes were noted to be an effect of the school breakfast programs making note that children who increased their participation, rather than decreased or even maintained participation, overall maths grades were increased. There is again an impact that nutrition and frequency does play in the form of having greater impact on children who are undernourished or of low socio-economic status. Adolphus et al. (2013) did acknowledge that increased participation at school breakfast programs did also increase school attendance. This increase in school attendance could also be contributing to improved results in grades. Other studies from Murchu et al. (2012) and Anzman-Frasca (2014) found there to be no significant correlations between school breakfast programs and academic achievement. Anzman-Frasca et al. (2014) and Leos-Urbel et al. (2013) likewise supports Adolphus et al. (2013) notion that increased attendance at the school breakfast programs, and therefore school, benefits academic achievement.

### **1.3.Cognitive Function**

As cognitive function is a difficult thing to measure only two articles were found that linked cognitive function to school breakfast programs and, although nutrition is not the focus of this paper, it was a common factor for cognitive function. Through Frisvold's (2015) difference-in-difference study it was found that vitamins and minerals within the food's composition played an important role in improving cognitive function such as concentration, short-term memory and cognitive ability. This was also noted by Adolphus et al. (2013) who explains that school breakfast programs provided children with four or more food groups to eat from. This exposure to different food groups show that cognitive function and ability, which then links to grades, increased in those that had eaten from three or four different food

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groups. Frisvold's (2015) and Leos-Urbel et al. (2013) study again complements this with findings that children who attend school breakfast programs overall improve their nutritional intake with those that eat breakfast at home or not at all due to the increase in fruit and dairy consumption. Wenes, Pincock and Scholey (2012) who performed a four-way cross-over laboratory based study found that results for attention were better in those that had breakfast than in those who had not. Mumm, Hearst, Shanafelt, Wang, Leduc and Nanney (2017), conducted a group randomised trial to increase school breakfast participation, and linked eating breakfast with increased memory and cognitive function as well as negative impacts on alertness, attention, and problem solving when breakfast was skipped. Eating breakfast was also positively associated with "recall, episodic memory, short and long-term memory, visual attention and concentration, as well as decreases in impulsivity among school children" (Leos-Urbel et al. 2013, p. 91).

#### **1.4. Psychosocial Factors**

The Oxford dictionary defines psychosocial as "relating to the interrelation of social factors and individual thought and behaviour" (Oxford University Press, 2017). This encompasses mental health. Poor mental health has been linked with deficits in children's diet. Mumm et al. (2017) group randomised trial found that breakfast consumption is associated with reduced emotional distress, stress, and depression. Likewise, O'Sullivan, Robinson, Kendall, Miller, Jacoby, Silburn & Oddy, (2008) found, through a cross-sectional population-based study, that eating breakfast from three or more food groups was linked with better mental health when measured using the child behaviour checklist. Previous studies have also noted the positive impact of eating from three or more food groups (Adolphus et al. 2013; Hoyland, Dye & Lawton, 2009; Leos-Urbel et al. 2013). Due to this consumption of extra vitamins and minerals, effects are more evident in children who are undernourished or of low SES

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(Adolphus et al. 2013; Leos-Urbel et al. 2013; O’Sullivan et al. 2008). It is important to consider SES of a child because as stated by Engels (2008) “a hungry child will be a less effective learner in school” (p. 13). Participation in school breakfast programs has also been questioned throughout the papers that have been reviewed. It has been questioned whether stigma has an impact on reduced participation at school breakfast programs. Currently there are many breakfast programs being run around the world however, not all are universal with some only being available to those of low income families. This could be a reason why some children are not making use of these programs as they do not want the label of “poor kid” (Leos-Urbel et al. 2013; Mumm et al. 2017). There is also the influence of peers and support from the school community. Leos-Urbel et al. (2013) contributes one aspect that may be adding to the reduced attendance is that the food at the breakfast programs are healthy and therefore unappealing based on that. Another contributing factor, as approached by Mumm et al. (2017), is that students are having to choose between socialising with their peers or going to the breakfast program to eat, if this program is not universal then not all peers within the friendship group will be eligible. Having social support can lead to and encourage children to increase their breakfast consumption and breakfast program participation (Mumm et al. 2017) and as a result of increased breakfast consumption healthy eating habits and regular energy intake positively impacts on children (Affenito, 2007). Additionally, Affenito (2007) found the social importance that families play on providing an integral role to children with regular meal intake to increased communication with their parents, their parents knew where they were, spend less time on their own, have positive body image, and children observing their parents eating breakfast increased the likelihood of the child eating breakfast.

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## 1.5. Breakfast vs. No Breakfast

There were five articles that showed the benefits of breakfast versus no breakfast. Results were mostly related to nutrition and the quality of the breakfast. O'Sullivan et al. (2008) and Adolphus et al. (2013) both indicate that the quality of breakfast links positively to school performance. O'Sullivan et al. (2008) study found that the nutrients found in common breakfast foods, such as cereals and breads, and milk are linked to positive brain function. It can be said from this study that those that go without breakfast are not getting an adequate intake of certain nutrients such as folate, carbohydrates and other vitamins. Hoyland et al. (2009) supports this by stating that children who eat breakfast are more likely to reach their daily nutritional needs compared to those children who skip breakfast on a regular basis. Foods that increase blood glucose levels are also needed to control destructive outbursts, agitation and irritability, and difficulty concentrating (O'Sullivan, 2008). Adolphus et al. (2013) complements these findings of low concentration levels as her study found those that had skipped breakfast self-reported more problems with attention. When Adolphus et al. (2013) conducted their literature review they found that those studies that measured on self-reporting showed a link between those that ate breakfast frequently and those that regularly skipped breakfast. The results showed those that rarely ate breakfast reported lower for school grades and lower ratings for self-assessed school performance. This indicates that regular consumption of breakfast is important for children's self-perceptions and contributes to meeting daily energy requirements which then impact on brain development and cognitive function (Adolphus et al. 2013). Regular breakfast consumption is also found to be linked with better mental health due to the variety of food, as mentioned previously. Moore, Moore, Tapper, Lynch, Desousa, Hale, Roberts and Murphy (2007) used a cluster randomised controlled trial and found that those children who consume breakfast on a regular basis did increase academic performance, can increase healthy eating patterns and, due to children who

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are of low SES being more likely to skip breakfast, can reduce the gap between health and educational disparities (Moore et al. 2007; Tapper, Murphy, Moore, Lynch & Clark, 2007). Eating breakfast regularly also leads to healthy behaviours. As found by O’Sullivan et al. (2008) these healthy habits include physical activity, and a good diet.

## **1.6.Behaviour**

Little evidence was found on breakfast programs and the result on classroom behaviour. Three articles (Adolphus et al. 2013; Moore et al. 2007; O’Sullivan et al. 2008) showed a positive effect on behaviour while one study (Murphy, Moore, Tapper, Lynch, Clark, Raisanes, Desousa & Moore, 2010) showed there was no effect on behaviour. What was found was through Adolphus et al. (2013) literature review, which found seven of the eleven studies, which looked at classroom behaviour, showed positive correlations between school breakfast programs and on-task behaviour. Moore et al. (2007) likewise found that hyperactivity, which is linked to on-task behaviour, can be influenced by school breakfast consumption.

## **1.7.Focus group and Individual interviews**

In conjunction with this literature review there were two semi-structured interviews and a focus group held with members directly linked to the Mildura Region School Breakfast Partnership. These conversations were held with the Governance Group in the form of a focus group and with two breakfast program facilitators in the form of one-on-one interviews (see appendix 1.3). These were conducted to gauge perceived benefits the breakfast program has had on individual schools across the region. As a result of these conversations it has been noted that the themes arising from these conversations are similar to the themes that were found in the literature. This section of the review will break down those themes and discuss

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what was found. This will then continue onto recommendations for the Healthy Together Mildura team on ways to measure these impacts.

Firstly, when asked what importance the school breakfast program has for their school responses were mixed and covered a range of reasons. These include the availability and times that the programs are offered as they encourage children to arrive at school earlier and this allows students to “fill their belly”. The school breakfast program is also about limiting absenteeism due to lack of food at the home. This has been found across many schools in the district. To combat this, local schools are having open conversations with parents around the importance of children being present at school and are providing lunch foods as well for those students that have been identified as struggling. This is incorporated into the school breakfast and allows children to take away food, such as sandwiches, without needing to say anything. Having universal programs are removing the stigma that has been associated with programs that are only available to those who are low-income families. Another area that was mentioned is that the school breakfast partnership is building community spirit. Parents are seeing the importance of this program and are supporting it, as are senior members of the community. On Thursday mornings, one school breakfast program is run by elderly ladies in the community. Some schools have a breakfast program solely run by parents five days a week. This is allowing children to interact with other people beyond their peers and increases their social skills. Due to this being a universal program in local schools there is no stigma attached and it has become a safe space for children. This is an important area as it allows staff to build relationships with the students and helps to identify if any child needs extra assistance.

Secondly, participants were asked for their opinion about what impacts they believe the school breakfast program has. The biggest impact that came from these conversations was that of student and parent engagement. All schools have found parents to be positive about

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this initiative and students are eager to get to school on time to participate. Students are very enthusiastic about the program and are willing to help. Some students have taken on ownership of the breakfast program and are able to take on a leadership role that they may not get otherwise within the school. Children are also beginning to make healthy connections and are learning skills such as hygiene practices and behavioural expectations. The schools are feeling that the stigma has been removed and as a result there is a whole school impact. Schools are seeing family engagement more and more and “families play a significant role in promoting regularity in children’s meal patterns” (Affenito, 2007, p. 567). All schools involved in this research are positive that the school breakfast program is important for the students. Having a partnership that supports all school involved is invaluable and needed to keep the breakfast programs running. All participants agreed that impacts were hard to measure and that more research does need to be conducted so there is a stronger evidence base when it comes to funding and partnering with other schools.

## Limitations

There are some limitations to consider when reading this document which need to be taken into account if this research is to be replicated or expanded on.

This review was limited to the available time of the student due to placement requirements which was a 14 week period. This meant that the review had to be rapid and as a result was only able to encompass articles that did not relate to nutrition. Further research may wish to encompass nutrition as nutrition has links with outcomes associated with school breakfast programs. Articles examined in this paper had differing research methods. This made it difficult to compare outcomes based on methods of measurement. There was a lack of Australian literature so literature from international databases was sourced. Further research at an Australian level will help fill the gap in this area.

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## Summary and Recommendations

The literature results show that there are many impacts on children's health and wellbeing beyond nutrition. School breakfast programs do impact on school attendance, academic performance, cognitive function and psychosocial factors positively, as evidenced through the review of this literature. School attendance levels were most notable at schools that had implemented a breakfast program to the point that students were attending an additional 76 days. School breakfast programs provide a good incentive for both students and parents to arrive at school on time. Academic performance showed positive increase in grades in many subjects, largely Math, which was seen to increase due to the number of food groups breakfast was eaten from. Eating from three or more food groups shows an increase in cognitive functions such as memory and concentration. Nutrition plays a large role in cognitive function with the increase of fruit and dairy consumption. When assessing psychosocial factors nutritional consumption again showed relevance to the mental health of students. With breakfast compensating for deficits in children's diet they were able to reduce stress, emotional distress and depression. Children who eat breakfast are more likely to reach their daily nutritional needs compared to those who do not. Children who regularly eat breakfast have better self-perceptions and meet energy requirements which also help with brain development. There was little evidence to show that there was a significant effect on behaviour however, what was in the literature was that attendance at school breakfast programs did impact positively on on-task behaviours. Further review of specific literature relating to nutrition and behaviour may uncover greater impacts of behaviour due to breakfast consumption. Universal school breakfast programs are needed to capture the vulnerable demographic without isolating them.

As a result of what was found in the literature recommendations for the evaluation framework of the MRSBP are as follows:

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1. MRSBP should measure school attendance using attendance records held by each school of before and after implementation of the school breakfast partnership.
  2. Academic achievement should be measured using a whole school approach looking at the year preceding and the year the breakfast program began. This may require being reliant on data already accessible from the schools.
  3. MRSBP should also measure academic achievement looking specifically at the students who attend the school breakfast programs.
  4. MRSBP should measure classroom behaviour. Both survey and observation methods should be used with the inclusion of student's self-evaluation. The best way to observe is through video recording. This should be done before schools implement a breakfast program and after implementation. A longitudinal study may be required to gain a true representation of changes to behaviour.
  5. The next stage of this research should consider nutrition and what is offered at breakfast programs as all literature has linked nutrient intake to outcomes.
  6. All recommendations made need to consider the capacity of the schools. Data collection should not be onerous on the schools.

In addition to these recommendations other themes, although not directly relevant to the research question, arose from the literature that the MRSBP should take into consideration when implementing school breakfast programs.

- Having a universal program is important in capturing those most vulnerable without isolating them.
- The quality of what is being served at breakfast programs has a direct impact on children's academic achievement and cognitive function as demonstrated by this report. It is beneficial to consume foods from three or more food groups as this can impact on school performance and mental health as described in this paper.

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- Frequency needs to be considered when providing breakfast programs as this paper has demonstrated the underlying connections of breakfast frequency increasing nutritional intake and will impact on school attendance and academic performance, as well as improving concentration.

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# Appendix

## 1.1 Ethics approval

### MEMORANDUM

To: Evelien Spelten  
Student: Bonita Leighton

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From: Secretariat, SHE College Human Ethics Sub-Committee (SHE CHESC)

Reference: S17-181 - Ethics application for negligible risk project - accepted

Title: Mildura Region School Breakfast Partnership Developing an impact evaluation framework

Date: 26/09/2017

The SHE CHESC Chair has evaluated your application as being of negligible risk and has accepted the project without review. **The acceptance is for five years until 26/09/2022.**

As a negligible-risk project (see [Negligible risk guidelines](#)), you are not required to submit annual and final reports, but you are required to maintain auditable records of the project.

Negligible risk studies cannot be modified using the Modification form, minor changes to a project do not require review. Researchers are responsible for informing the CHESC of any major modifications that may mean the research no longer fits the requirements of a negligible risk project. The Chief Investigator should send an email to the relevant CHESC entitled "modification for negligible risk project" with the project reference number (e.g. S16-500). Researchers will be informed via email if they are required to submit an application for human ethics review and approval to the CHESC or UHEC or if the modification is acceptable.

Please note that any data and consent forms need to be retained for a minimum of 5 years and that the consent forms must be stored separately from the data. Please also ensure that each participant retains a copy of the Participant Information Statement.

Kind regards,

**Ms Kate Ferris MPH BPsych(Hons)**

Human Ethics Officer

Secretariat – SHE College Human Ethics Sub-Committee

Ethics and Integrity / Research Office

## 1.2 Database Search

| Database          | Search Terms   | Initial Results | Application of criteria |
|-------------------|--|-----------------|-------------------------|
| La Trobe General  | Breakfast Club Australia   | 23,064          | 423                     |
|                   | Evaluating Breakfast Programs  | 10,019          | 4,924                   |
|                   | Benefits of School Breakfast Programs  | 7,499           | 4,375                   |
|                   | Benefits of School Breakfast Programs AND Australia  | 1,305           |                         |
|                   | School Breakfast Program AND Health and Wellbeing AND Evaluation AND Australia   | 0               |                         |
|                   | School Breakfast Program NOT obesity NOT nutrition NOT food security   |                 | 26                      |
| ProQuest Central  | Breakfast AND Youth AND Schools  |                 | 49                      |
|                   | Australia AND Breakfast Program  |                 | 85                      |
|                   | Breakfast Program AND benefits   |                 | 10                      |
|                   | Breakfast Program AND evaluation   |                 | 27                      |
|                   | Breakfast Program AND Framework  |                 | 8                       |
|                   | School Breakfast AND Outcomes  |                 | 37                      |
|                   | School Breakfast   | 371             | 2                       |
|                   | Breakfast AND Mental Health AND Children   |                 | 18                      |
|                   | Breakfast AND Behaviour AND Children   |                 | 198                     |
|                   | School Breakfast Programs AND Health and Wellbeing AND Australia NOT Obesity NOT Nutrition NOT Food Security                 |                 | 1                       |
| Informit Complete | Australia AND Breakfast Program AND Schools  |                 | 1                       |
|                   | School Breakfast AND Impacts   |                 | 0                       |
|                   | School Breakfast   |                 | 90                      |
| Trove             | School Breakfast Program   |                 | 160                     |
| Google Advanced   | School Breakfast Program AND Evaluation NOT Obesity NOT Nutrition NOT Food Security  |                 | 11                      |
|                   | Breakfast Programs AND Schools AND Evaluation OR Results NOT Obesity NOT Nutrition Not Food Security                         | 2,560           | 14                      |
|                   | Breakfast Programs AND School AND Evaluation OR Results AND Health and Wellbeing NOT Obesity NOT Nutrition Not Food Security |                 | 0                       |

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## 1.3 Interview questions

### Breakfast Program Questions

1. In your opinion, is the school breakfast program important for your school? If yes, why?

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2. What impact, if any, do you think the School Breakfast Program has on your school?

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3. What do you like about the School Breakfast Program?

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4. Are there barriers to providing the School Breakfast Program in your school? If yes, what are they?

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5. What could be improved with the School Breakfast Program in your school?

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6. Is there anything in particular you would like to see come out of the School Breakfast Program for your school?

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