

Bairns Tea Club Project

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- **Research Questions**
- 1. Can a 10-week homework and hot meal intervention have an impact on measures of numeracy and literacy in primary school age children?
- 2. Can a 10-week homework and hot meal intervention have an impact on measures of health and wellbeing in primary school age children?
- 3. What are the children's perceptions of the impact of their engagement with Dundee Bairns' Tea Club?
- 4. What are the parents' perceptions of the impact of pupil engagement with Dundee Bairns' Tea Club?
- 5. What are the teachers' perceptions of the impact of pupil engagement with Dundee Bairns' Tea Club?

Table 1. Tea Club recruitment strategies used by different schools

School	Parent/family involvement	Academic need	Health & fitness need	Chaotic lifestyle
A	Meal	Yes	Yes	No
B	Meal	Yes	Yes	No
C	Meal	Yes	Yes	No
D	None	Yes	No	Yes
E	Club & meal	Yes	No	Yes

Intervention

Consequently, there were three intervention models:-

1. Child only for homework and hot meal
2. Child only for homework, family for hot meal
3. Family for homework and hot meal

Table 2. Homework club activities

Monday	Tuesday	Wednesday	Thursday	Friday
Sports	Numeracy	Literacy	Health & Wellbeing	Sports

Table 3. Example of one week menu for Tea Club

WEEK 1	Monday	Tuesday	Wednesday	Thursday	Friday
Soup		Cream of Tomato Soup		Lentil Soup	
Main Course	Steak Pie or Minced Quorn Pie	Chicken Pasta Bake or Baked Potato & Beans	Traditional or Quorn Mince	Beef or Vegetarian Lasagne	Corned Beef Stovies or Macaroni Cheese
	Roast Potatoes	Peas	Creamed Potatoes	Garlic Bread	Baked Beans/Peas
	Veg Medley	Salad	Sliced Carrots	Salad	Chips
Dessert	Selection of Muffin		Selection of Yoghurts		Carrot Cake & Custard
Drink Option	Milk or Water	Milk or Water	Milk or Water	Milk or Water	Milk or Water

- 60 Tea Club participants, aged between 5 and 12 years (36 females, 24 males) were recruited
- The health and wellbeing analysis was restricted to 10-11 year olds, resulting in 26 participants' (18 females, 8 males)

Table 7. Mean daily attendance figures by school (figures incomplete)

	Monday	Tuesday	Wednesday	Thursday	Friday
School A	7.8	6.2	3.5	8.3	7.8
School B		5	7	2	
School C					
School D	13	12	13	12	14
School E	20	20	20	20	20

Literacy and numeracy assessment

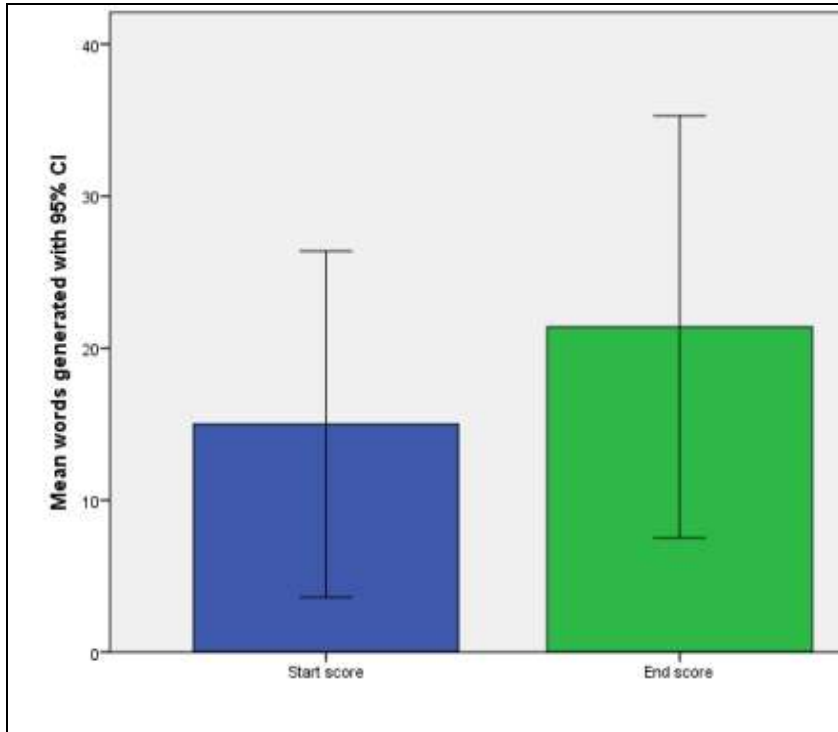


Figure 1. Mean start and end word scores for participants attending the Literacy Homework Clubs

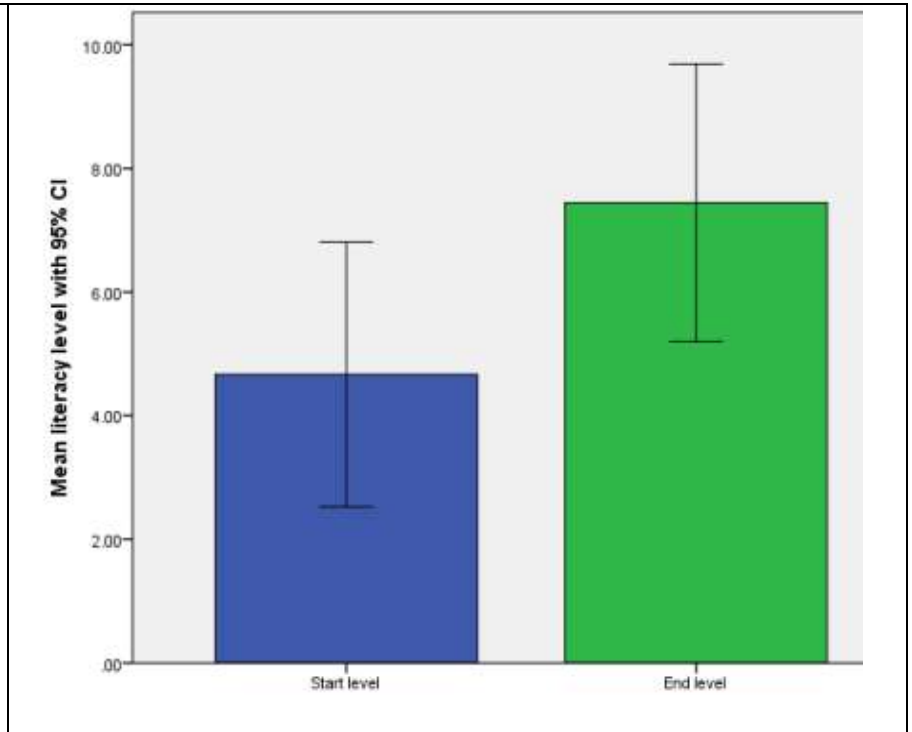


Figure 2. Mean literacy levels of improvement for children using the Lexia literacy programme in homework clubs

Numeracy outcomes

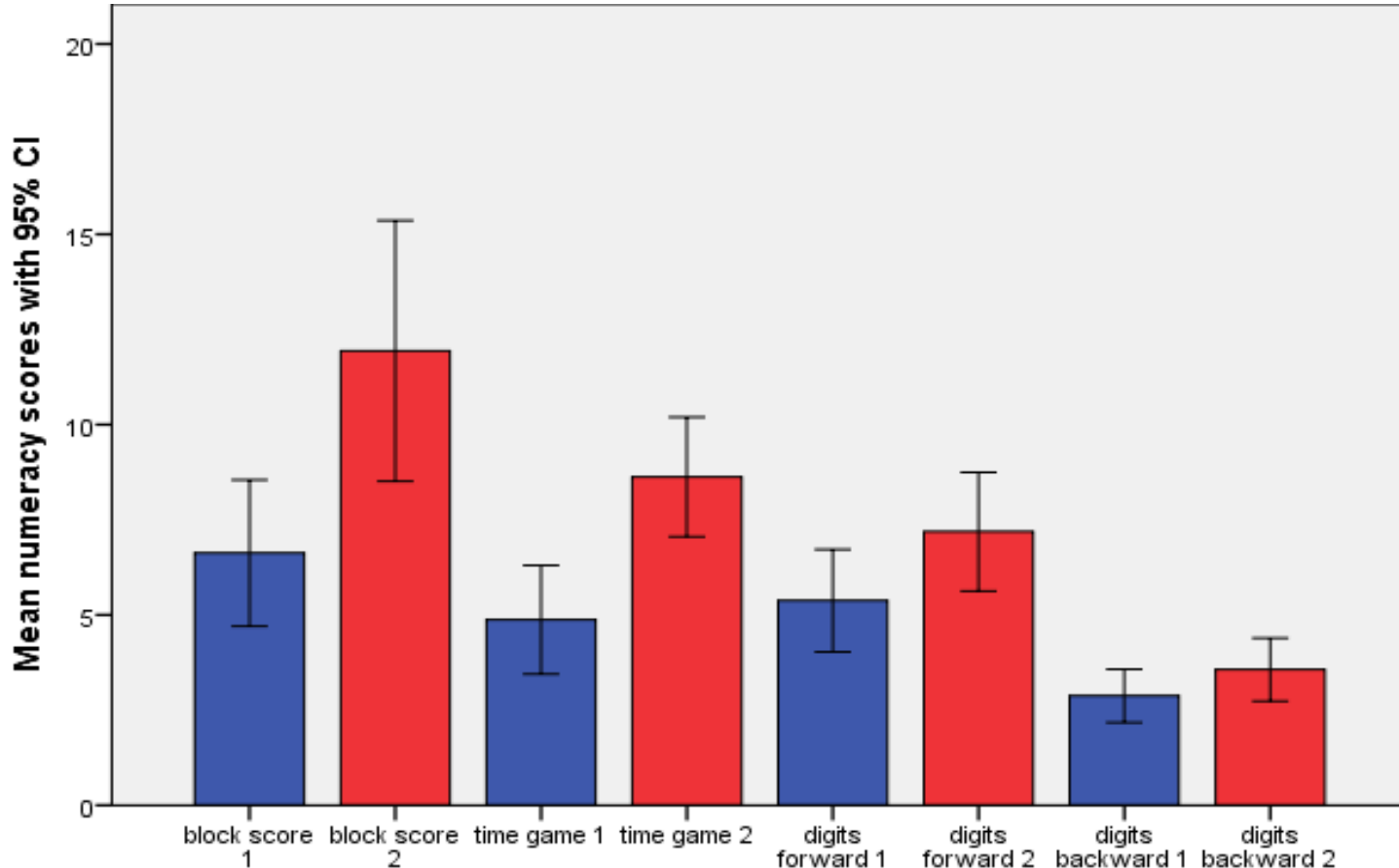


Figure 3. Numeracy scores for block task, time game, and forward and backwards digit recall for participants attending numeracy homework clubs.

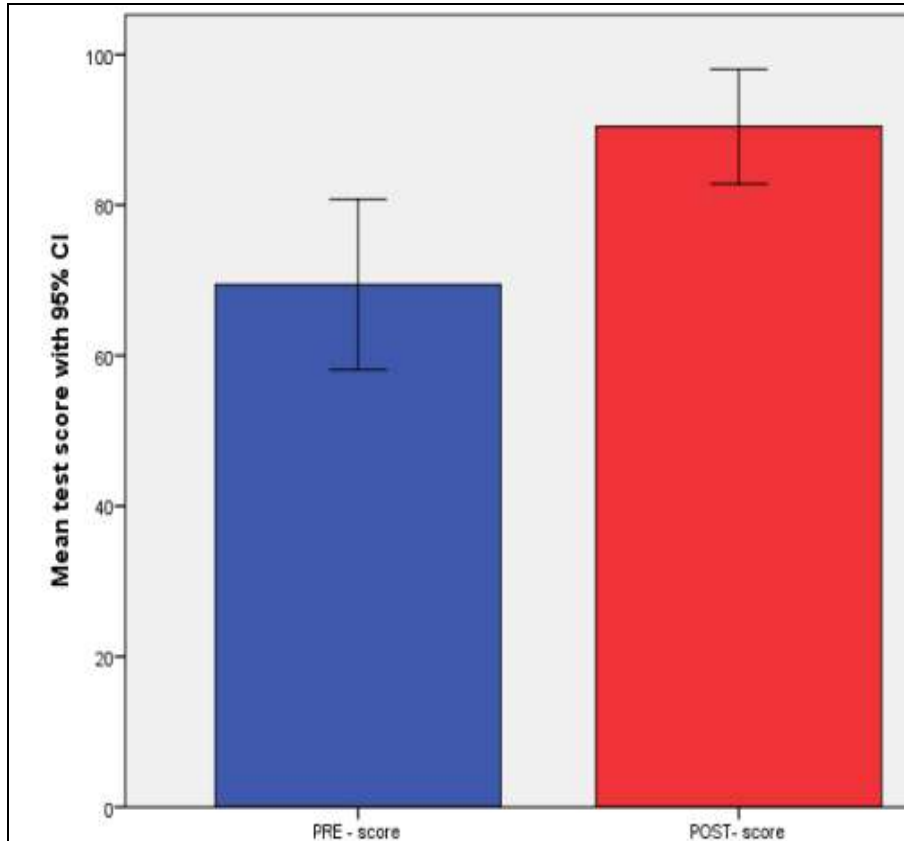


Figure 4. Pre- and post-intervention scores for school D participants on multiplication tests

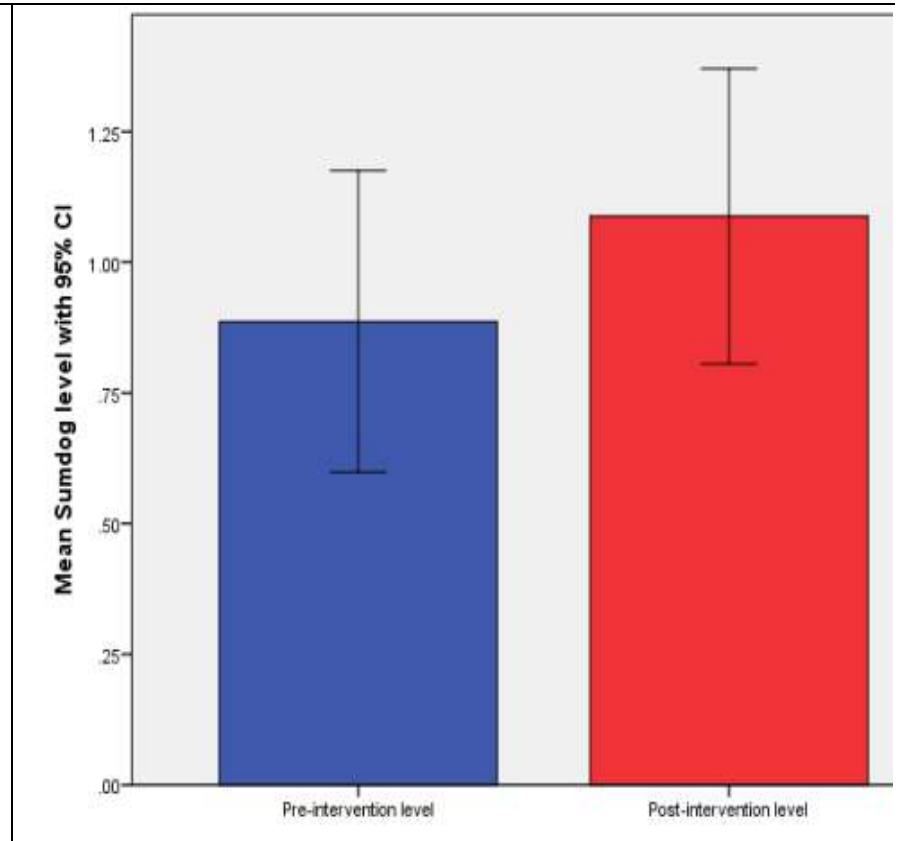


Figure 5. Pre- and post-intervention scores for school E participants on Sumdog assessments

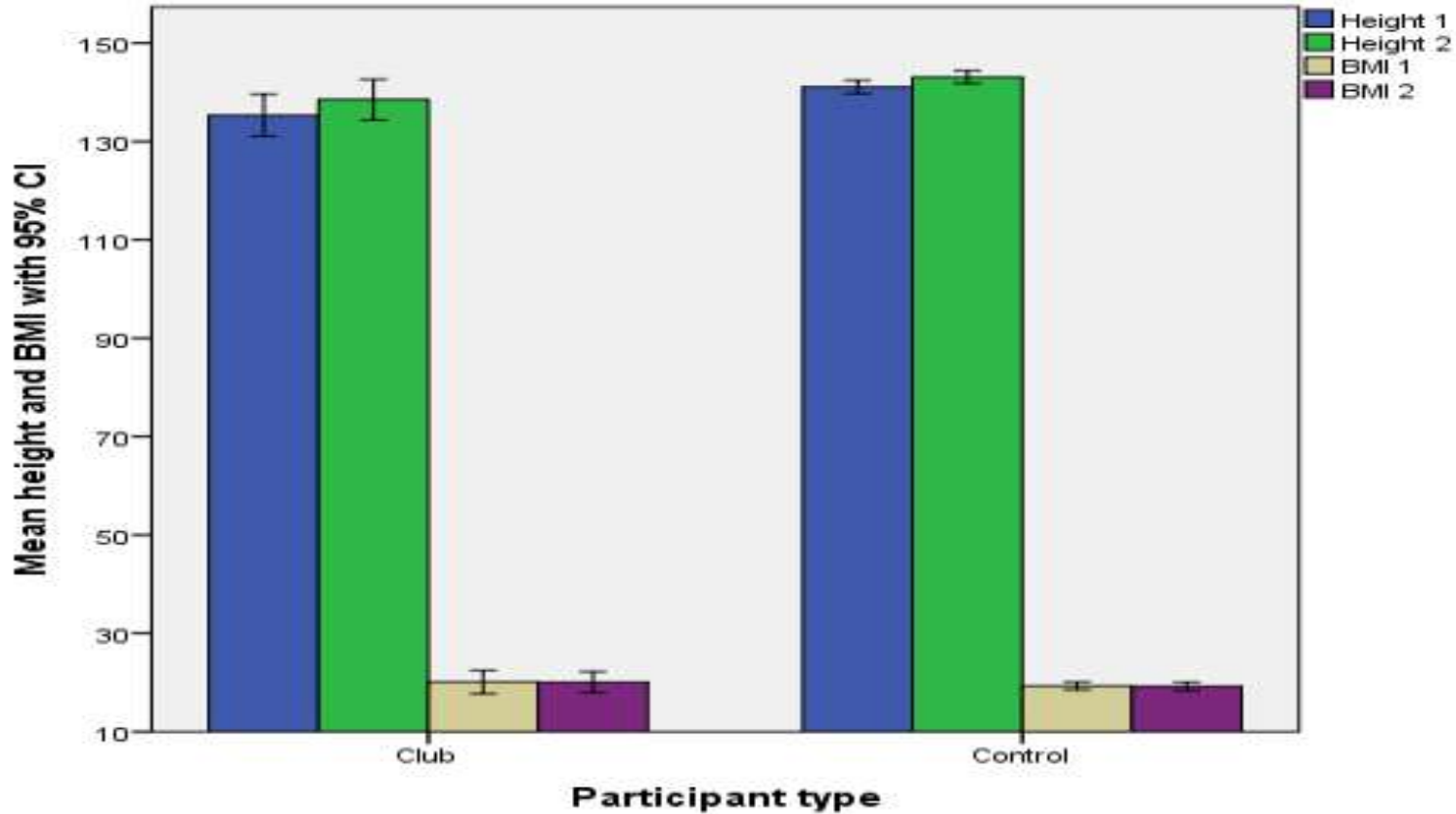


Figure 6. Mean height (Schools A-E) and BMI (Schools A-D) for Tea Club and Control participants at pre- and post-intervention time periods.

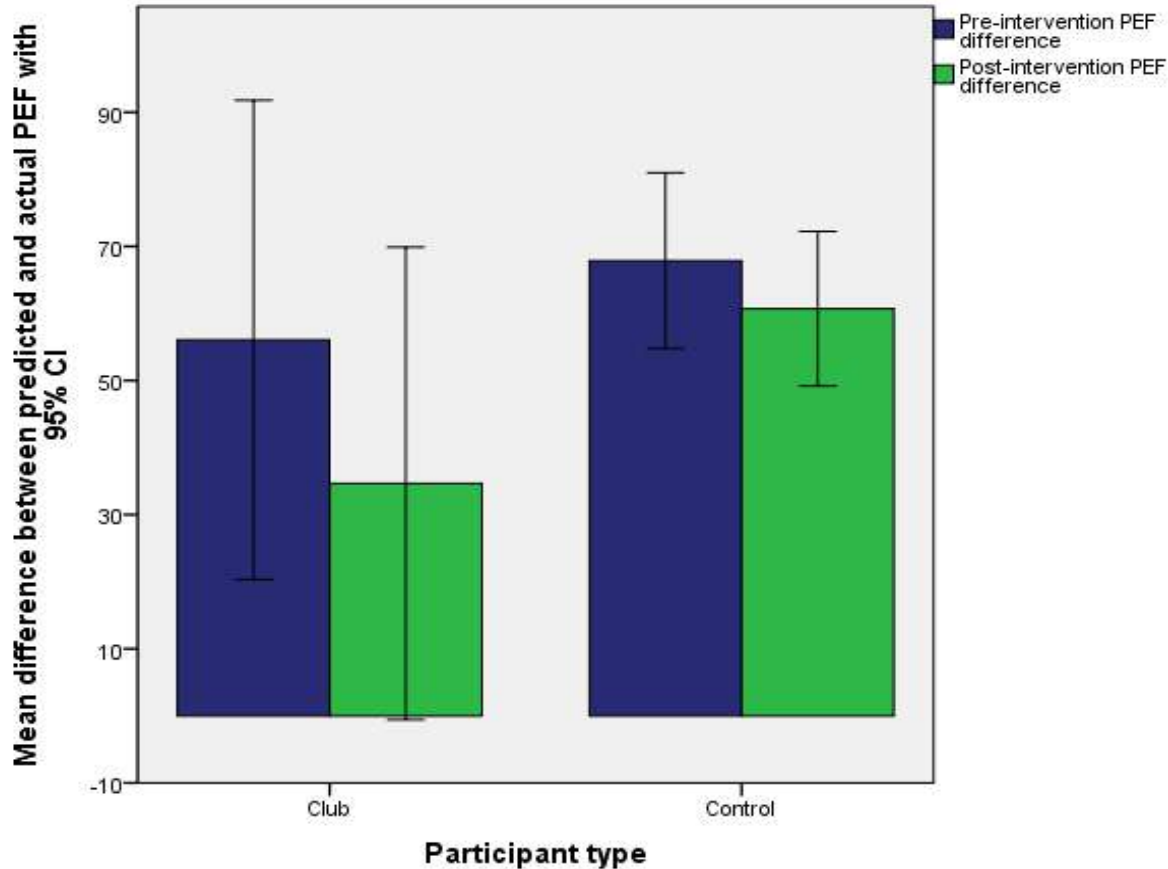


Figure 8. Mean differences in expected and actual peak expiratory flow (litres per minutes) for Tea Club and Control participants, at pre- and post-intervention.

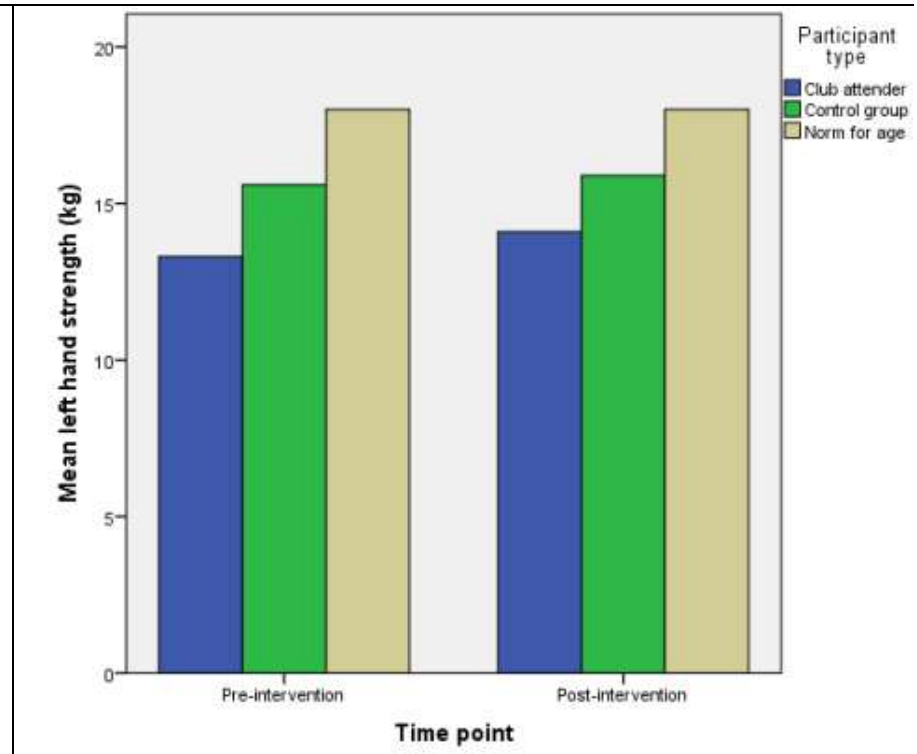
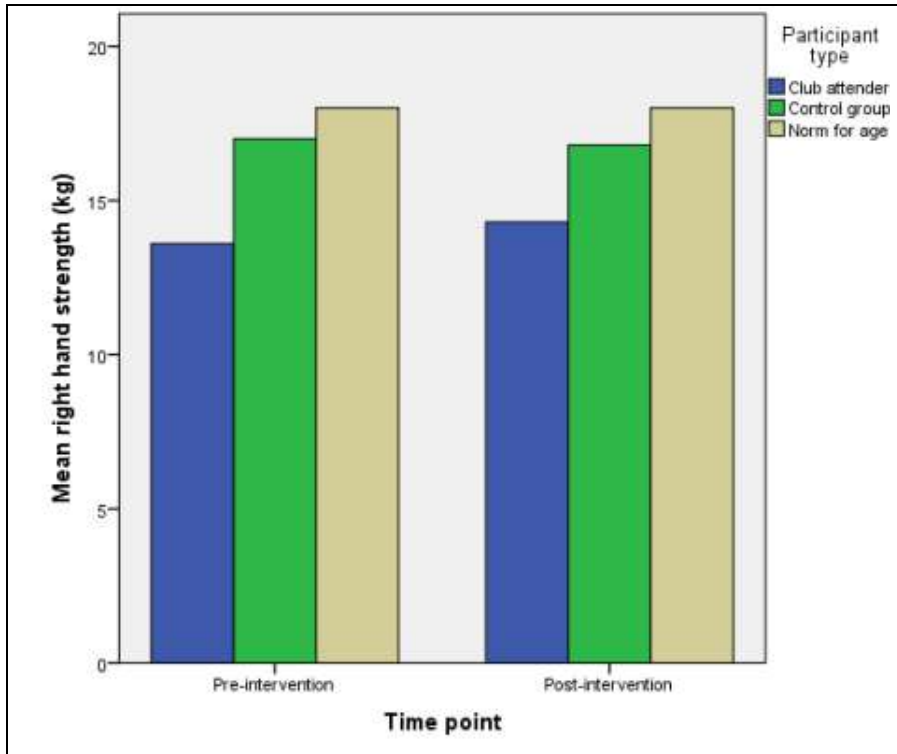


Figure 11a. Mean pre- and post-intervention measures of right hand strength (kg) for Tea Club and Control group participants, compared to Norms for age.

Figure 11b. Mean pre- and post-intervention measures of left hand strength (kg) for Tea Club and Control group participants, compared to Norms for age.



Figure 16. Word cloud of children's responses to the Bairns' Tea Club

Table 8. Staff perceptions of Tea Club impact

		Much worse	A little worse	Stayed the same	Some improvement	Great improvement
1.	School attendance			73.6%	15.8%	10.5%
2.	Attitude towards school		5.3%	52.6%	26.3%	15.8%
3.	Behavior in class			42.1%	52.6%	5.3%
4.	Engagement with learning			52.6%	31.6%	15.8%
5.	Literacy skills			52.6%	47.4%	
6.	Numeracy skills			52.6%	42.1%	5.3%

- Teachers observed that the children were happier in school, had enhanced relationships and social skills, had more confidence and consequently were more willing to try things.
- Building of trust between parents and schools

Challenges/Limitations

- Different methodologies/models of recruitment/implementation
- Different measurement tools
- Limited control group
- Limited attendance data
- Variable age group

• Recommendations

- The findings to be widely disseminated, including to policy makers.
- Further investment in research would enable more pupils/schools to be recruited with a longer intervention period (minimally one school year) with consideration given to sustainability.
- A standardised approach adopted for recruitment, and measurement (eg. use of Scottish Survey of Literacy and Numeracy data) and model of delivery (ideally with parent involvement); and can Pupil Equity Funds support Tea Club activities?
- A project officer should be appointed to co-ordinate all aspects of the project
- Clubs should segregate activities for older and younger pupils and consider family cooking sessions as an additional activity.
- Establish a citywide food poverty forum to share resources/outcomes with other family-oriented projects (eg. the Rowantree Nursery Play, Learn, Eat Well project).

- Conclusion

- The Dundee Bairns Tea Club has been able to evidence that even within a short time frame (10 weeks) a homework and hotmeal after school activity for a targeted pupil group can positively impact attainment, pupil perceptions of health and happiness, and teachers' perceptions of pupil confidence and engagement with learning. All stakeholders note the relationship benefits that were derived from the club both in terms of building bonds between teachers and parents, as well as enabling families to spend quality time together. There is evident merit in investing in this type of initiative to enhance the attainment and potential future employment opportunities of those living in, or at risk of, food poverty in Dundee.