

iCAHE JC Critical Appraisal Summary

Journal Club Details

Date of submission	November 2011
Journal Club location	Victor Harbour
JC Facilitator	Mel Tripptree
JC Discipline	Physiotherapy

Article/Paper

Katz, D, Cushman, D, Reynolds, J et al (2010) Putting Physical Activity Where It Fits in the School Day: Preliminary Results of the ABC (Activity Bursts in the Classroom) for Fitness Program, *Preventing Chronic Disease: Public Health Research, Practice And Policy*, Vol. 7, no. 4.

Please note: due to copyright regulations iCAHE is unable to supply a copy of the critically appraised paper/article. If you are an employee of the South Australian government you can obtain a copy of articles from the [DOHSA librarian](#).

Article Methodology:	Randomised Controlled Trial
Returned JC on:	November 2011
By CAHE staff member:	Dr. Suchi Garg





Ques No.	Yes	Can't Tell	No	Comments
1	✓			Did the study ask a clearly-focused question? YES The objective of the study was to evaluate the effects of a classroom-based physical activity program on physical fitness, academic performance, classroom behavior, and health outcomes of elementary school students.
2	✓			Was this a randomised controlled trial (RCT) and was it appropriately so? The study was conducted on five schools which were randomly assigned to receive the intervention or serve as a control group. There is no information about the process of randomisation. Is it worth continuing? YES
3	✓			Were participants appropriately allocated to intervention and control groups? Yes, three schools were assigned to receive the activity bursts in the classroom (ABC) for fitness program and the other two schools served as controls.
4		✓		Were participants, staff and study personnel 'blind' to participants' study group? This cannot be determined from the paper as the information is not provided.
5	✓			Were all of the participants who entered the trial accounted for at its conclusion? A total number of 1216 students were asked to participate in the study. However, two of the students dropped out because of lack of parental consent. All 1214 students are accounted for at the conclusion.
6	✓			Were the participants in all groups followed up and data collected in the same way? Yes, this was kept consistent in the study.
7			✓	Did the study have enough participants to minimise the play of chance? The sample consisted of 1214 students; however the population was not a true cross-section as came predominantly from one district in United States.
8	✓			How are the results presented and, what is the main result? The results are presented using <i>t</i> tests, Pearson's X^2 tests and Mann-Whitney tests. The statistical software SPSS version 15 was used to conduct the data analysis. The α level was set at 0.05 for all tests. <i>Bottom line result:</i> The study concluded that ABC for fitness program can improve fitness, reduce medication use (Asthma and ADHD), and preserve teaching time and academic performance.

9			<p>✓</p> <p>How precise are these results? This cannot be determined from the paper as confidence intervals are not given.</p>
10			<p>Were all important outcomes considered so the results can be applied?</p> <p><i>Journal Club Response:</i></p> <p>No. There were no outcomes described in relation to teacher uptake and implementation of the program, and the usefulness of the program resources by teachers. We really needed to know 'how' the teachers actually implemented the program, for eg, did they all implement it as recommended, did they all achieve the recommended minimum of 30 minutes of physical activity breaks accumulated over the school day? This was essential information to determine how this may have influenced the student outcomes. Nothing was reported about the 'parent' portion of the intervention either. This may or may not have influenced student outcomes also.</p> <p>We also identified two other issues that the researchers also recognised. The intervention group was not representative of the broader population, with predominantly white students of low socioeconomic status from one district in the USA. Would a broader target group of students significantly change outcomes? It was also identified that the implementation time of the intervention was too short. The researchers indicated they would be repeating this study, but addressing both these factors. Our Journal Club was interested in reviewing the teacher resources for this program, as they are available online, to try to ascertain their appropriateness for use in schools in our regions. We will also be interested in reviewing further results from this study in future, should they be published, which may provide the additional information we felt was missing from this article to determine if appropriate to consider applying the results of this study by facilitating the implementation of similar programs in our regions.</p>

