

CATCH Kids Club Evidence Summary

CATCH Kids Club (CKC) is a physical activity and nutrition education program designed for elementary and middle school aged children in afterschool and summer settings. CKC is composed of 3 components: 1) educational lessons related to nutrition, physical activity, and screen time reduction, 2) hands-on snack preparation, and 3) structured physical activities provided in a CKC Physical Activity Box. Similar to the CATCH program on which it is modeled, CKC has been found effective in improving physical activity and nutrition knowledge and behaviors and in reducing overweight and obesity.

- CKC was first pilot-tested and formatively evaluated in 16 afterschool programs (8 intervention, 8 comparison) in El Paso and Austin, TX [1]. Participants were mostly white and Hispanic and in grades K-5, however measurement was limited to students in grades 3-5. Significant results:
 - The proportion of time children engaged in moderate-to-vigorous physical activity (MVPA) on the playground increased in intervention sites and decreased in reference sites (56.8% vs. 31.3% at post-test).
 - Intervention sites reduced unstructured free time by 64 minutes and increased active game play by 30 minutes.
 - There was a significant improvement in food knowledge among children at CKC sites and marginally significant improvements in fruit and vegetable intake.
- The Healthy Opportunities for Physical Activity and Nutrition (HOP'N) afterschool trial utilized the CKC Physical Activity component as part of a 3-year randomized control trial to prevent obesity among 4th graders in afterschool programs in Lawrence, Kansas [2]. At baseline, there was no difference in active recreation program time between intervention and control sites. After 1 year, active recreation program time at intervention sites was 23.4 minutes greater than at control sites. In addition, MVPA for overweight/obese children at control sites decreased by 9.65 minutes per day while MVPA for overweight/obese children at intervention sites increased by 5.92 minutes per day.
- CKC was piloted in four afterschool program sites in eastern Los Angeles County with 3rd to 5th grade students, a majority of whom were Asian (60%) [3]. Compared to non-intervention sites, there was a significantly greater increase in nutrition knowledge over time and a significantly greater decrease in junk food consumption at CKC sites. Furthermore, the proportion of overweight or obese children decreased 3.1% among the intervention group versus 2% among the comparison group, a statistically significant difference.
- Since 2006, OASIS has used CKC as part of its Active Generations program in which older adult volunteers facilitate CKC for children in grades 3-5 in community

settings. As of 2012, the program had expanded to 8 U.S. cities and reached over 1000 children. The following results were reported [4]:

- A statistically significant increase in reported fruit and vegetable consumption from pre to post-intervention.
 - Significant increases in nutrition knowledge and the likelihood of reading food labels from pre to post-intervention.
 - Participants reported significantly greater confidence in their ability to participate in physical activity on 3-5 days per week.
 - A significant decrease in the percentage of children watching 3 or more hours of television per day (64.8% vs. 59.8%).
- Since 2007, the Oklahoma State Department of Health has supported CKC implementations in afterschool programs across the state. The five-year evaluation results are as follows:
 - *3-year pilot (2007-2010)*: There was a significant increase in MVPA from year 1 to year 2 and a non-significant decrease in year 3. There was a significant decrease in BMI percentile scores from 2007 to 2008 and from 2009 to 2010 [5].
 - *Year 4 (2010-2011)*: Although there were few differences in specific food behaviors from 2010 to 2011, there was a statistically significant increase in the composite score for food nutrition with more than double the number of students engaging in at least 7 of 9 healthier food behaviors. There was also a significant improvement in physical activity knowledge and a reduction in screen time [6].
 - *Year 5 (2011-2012)*: There was a significant increase from 2011 to 2012 in the number of students engaged in 20 minutes of physical activity on the previous day. Among males, there was a decline in the number of students who reported eating no fruits and vegetables and in the number of students who reported eating chips or French fries every, although these results were not statistically significant [7].
 - In 2008, CKC was introduced into 330 YMCA and Boys and Girls Club (BGC) afterschool program sites in Ontario [8, 9]. Notable results after one year:
 - The percentage of time spent in MVPA increased at all CKC sites with all post-intervention sites measuring above 50% time spent in MVPA.
 - At YMCA sites, percentage MVPA rose from 52.1% to 59.3% (8 month comparison) and 49.9% to 60.7% (4 month comparison). Compared to control sites, however, these changes were not significant.
 - At BGC sites, the percentage of time spent in MVPA rose significantly from baseline to post-intervention (35.2% to 70.8%).

- CKC sites spent more time delivering instructional content, a higher percentage of time in game play, and considerably less time in free play compared to control sites. At BCG sites, substantially more time was spent in fitness activities.
 - Compared to control sites, CKC sites provided a wider range of nutritious food choices for snacks including a higher proportion of vegetables, proteins, and dairy snacks.
- CKC is currently being implemented in over 450 YMCA afterschool program sites across New Jersey as part of the Healthy U program [10]. From baseline to 42 month follow-up, there were significant increases in total MVPA, fruit and vegetable consumption, and the number of students who reported watching two or fewer hours of television on weekdays. There were also significant reductions in soda or punch consumption.

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