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HealthKick:

a nutrition and physical activity intervention for primary schools in low-income settings

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Collaborators

WORLD DIABETES FOUNDATION

The South African context

- Quadruple burden of disease in South Africa –
  - Communicable,
  - Non-communicable (disproportionately affect urban poor),
  - Perinatal and maternal, and
  - Injury-related disorders*
- Complex mix of over- and under-nutrition
- Policy –
  - Despite progressive policy, there is a general issue with the gap between policy and implementation across all sectors
  - Frequent changes in policy with changes in government, and the 'political' appointment of ministers

*Mayosi BM, Flisher AJ, Lalloo UG, Sitas F, Tollman SM, Bradshaw D. The burden of non-communicable diseases in South Africa. Lancet 2009; 374:934-47.

Healthy Active Kids SA Report Card 2010

- Overall grade: C-
- Physical activity, physical education and organised sport at schools: Grade D
- Screen time: Grade F
- Overweight/obesity: Grade C-
- Stunting: Grade D-
- Fruit and vegetable intake: Grade D

www.globalpa.org.uk/downloads/**healthy-active-kids-report-2010**.pdf

HealthKick

- School-based nutrition and physical activity intervention in primary schools*
- Schools located in historically disadvantaged, low-income communities from an urban area close to Cape Town, and two rural areas outside of Cape Town (Western Cape province)
- Aims –
  - To promote healthful eating habits and increase physical activity in Grade 4-6 learners, their parents and educators, to prevent overweight, and reduce risk of chronic diseases
  - To promote the development of an environment within the school and community that facilitates the adoption of healthy lifestyles

*Draper CE, de Villiers A, Lambert EV, Fourie J, Hill J, Dalais L, Steyn NP. HealthKick: development, implementation and evaluation of a nutrition and physical activity intervention for primary schools in low-income settings. *BMC Public Health* 2010; 10:398.

HealthKick behaviour outcomes

- Eat a variety of foods every day
- Eat more different kinds of fruit and vegetables every day
- Eat less fat and oily food
- Eat less sugar and sweet foods, such as cakes, doughnuts, sweets, etc.
- Eat a regular healthy breakfast daily
- Bring healthy lunchboxes to school as a daily routine
- Increase physical activity of learners during school time
- Increase physical activity of learners after school hours

Frameworks / Interventions

- Action Schools! BC (whole school model) –
  - Action Pages (resource guide)
  - Planning Guide and Action Zones
- CDC School Health Index: Self-assessment and planning guide
- Pathways – mainly questionnaires for learners
- Alliance for a Healthier Generation: whole school environment, toolkit approach
- Planning guides helped identify areas in which we wanted to work, besides nutrition and physical activity, e.g. –
  - School physical and policy environment
  - Family and community
  - Staff health promotion

100 schools study

- Top health priorities (identified by school principals) –
  - For learners: unhealthy diet, tobacco use (in poorest schools)
  - For educators: lack of physical activity, NCDs
  - For parents: substance abuse, NCDs
- Main barriers to health promotion programmes (school principals) –
  - Too little time
  - Lack of financial resources
  - Inadequate facilities
- Food provided* –
  - Tuck shops / vendors: most unhealthy foods sold the most
  - Feeding scheme

*Differences between SA and North American school food service environment

HealthKick intervention

- 8 urban and 8 rural purposively selected intervention and control schools
- Intervention components –
  - Toolkit: resource guide, resource box, physical activity resource bin
  - Educator's manual
  - Action planning

- Original action planning 'zones': Life Orientation (curriculum), food and nutrition, physical activity, school physical and policy environment, family and community involvement, staff health promotion
- Current areas of focus: school food and nutrition environment, school physical activity and sport environment, staff health, chronic disease and diabetes awareness

Curriculum – History in SA

- 1995-1996: policy-driven efforts to improve post-apartheid education and address inequalities
- 1998-2000: Curriculum 2005 introduced (Outcomes-Based Education)
- 2002: Release of Revised National Curriculum Statement, including Life Orientation learning area –
  - Health promotion, social development, personal development, physical development and movement
  - Serious problems with implementing physical activity: no accountability or consequences for not adhering to policy
  - Lack of educators' capacity to teach physical activity
- 2011: Curriculum Assessment Policy Statement
- Physical Education in Life Skills, only 1 hour per week

HealthKick Curriculum component

- Initially advised by local government not to base the intervention on the curriculum because it's fickle
- A curriculum component was included – best practice
- Needed to align with national curriculum outcomes as educators would not do anything that's seen as an add-on
- Aimed to link HealthKick goals with the existing Life Orientation curriculum for Grade 4-6, since it was an open curriculum
- Initially provided workshops for Life Orientation educators
- Over time, the essence of the curriculum component stayed the same, but the format changed
  - Making the links not enough to ensure use of curriculum documents
  - More structured curriculum document provided with suggestions for assessment and activities

Educator's manual

- HealthKick Planning Guide
- Booklet for each focus area –
  - Rationale
  - Taking stock
  - Guidelines for taking action, including strategies they have decided on, who will do it and when
- Poster for HealthKick actions / events
- HealthKick goals
- South African Food-based Dietary Guidelines
- CD of electronic resources

Examples of actions / events

- Vegetable garden, in collaboration with Dept. of Agriculture
- Nutrition education session for educators, based on the FBDGs
- Workshop with vendors
- Nutrition talk for parents, at parent / educator evening
- Meeting with school feeding scheme volunteers / staff
- Physical activity demonstration for educators
- Educators' health check : BP, blood glucose, BMI, waist circumference, feedback and advice (intervention, not for research purposes)
- Denim for Diabetes Day with Diabetes Association of SA: children buy a sticker and wear denim; DVD's and education sessions; profit split between school and Diabetes Association
- World No Tobacco Day: educators seen smoking were fined

Adapting and applying existing frameworks and interventions: Challenges and lessons learned

Challenges

- Action planning –
  - Finding time to do it and getting them to commit to actions
  - Manual helped them to commit to activities, more focused approach
  - But WHEN they will do it is a problem, as they usually have to go back and consult with someone before committing to a date
- Concept of a champion wasn't successful
  - Often not voluntary
  - Need more than one champion, e.g. physical activity and nutrition, or for Intermediate phase (Grade 4-6)
  - Needs further investigation
- Competing priorities –
  - Within the school and community environment, e.g. drugs, HIV
  - Curriculum changes and demands from Department of Education

Challenges

- Reliance on educators to implement –
  - Obtaining their buy-in, getting them to commit
  - Lack of capacity and training on nutrition and physical activity
  - Poor nutrition knowledge, despite twice receiving a copy of the FDBGs
  - Poor health status: how willing and able are they to be role models?
  - HealthKick did engage with them: checked their health, gave advice, provided training
  - Average age of educators is 52 years: willingness to change?
  - Doesn't seem to be a supply of new, young educators in disadvantaged settings (compared to advantaged)
  - Belief that children are too poor, they don't have the resources to implement anything, and get little support from parents, so they don't want to even try
  - Legacy of teaching in SA: cut-backs on educator training

Challenges

- Lack of resources –
  - Very limited access to computers
  - Large classes (30-50 children)
  - Deprivation of many children
- Adopting toolkit approach (bringing people into contact with existing resources) –
  - Resource guide wasn't used; need to investigate if info in educators' manual has been used
  - Educators don't have time to look through resources; you need to give them what you want them to use
- Training –
  - No time
  - Should have happened at the beginning of the programme

Challenges

- Working with stakeholders
  - Had buy-in from local (district) government more than provincial government
  - Difficulties with obtaining provincial government buy-in, which made curriculum aspects of intervention more challenging
  - High turn-over of government staff; is a 3 year intervention too long?
  - Promoting a healthy school environment required buy-in from school governing bodies (more than local government)
  - SGBs are largely dysfunctional (identified in 100 schools study)

Lessons learned

- Process has been more about intervention development and trying to adopt international concepts rather than intervention implementation; only really been implementing in 2011 with educators' manual
- Actions / events chosen by schools are not dependent on HealthKick, as others could be approached (e.g. Dept. of Education, Dept. of Health, NGOs etc.), therefore sustainable
- Fitting training into the schedule –
  - Needs to be arranged by the Dept. of Education
  - Training should start at educators' training colleges and tertiary institutions because existing training is limited

Lessons learned

- Should have selected schools who wanted to implement HealthKick, rather than selecting them and having to obtain their buy-in; would have been easier to make the case for provincial Department of Education
- Should originally have obtained buy-in from provincial government (although initial approval was obtained)
  - Getting buy-in from districts made the most sense at the start
  - Provincial government would have been approached with the results at the end of the study
  - Further implementation needs a champion at the provincial level

Conclusions

- Models can be transposed from high to low- and middle-income settings
- Factors influencing success are similar, e.g. leadership, role of principals, over-burdened educators, lack of time
- But challenges exist in the availability of resources (particularly man-power) to implement and evaluate the models as intended
- Community involvement – may be influenced by the role of the school in the community
  - Getting buy-in from the school before getting buy-in from the community, or the other way around?
- Working with a different health agenda and disease burden can make it hard to prioritise nutrition and physical activity, even if these are stated as priorities by the principal

Thank you