

Author's response to reviews

Title: "HealthKick" : Formative assessment of the health environment in low-resource primary schools in the Western Cape Province of South Africa

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Version: 3 **Date:** 17 August 2012

Author's response to reviews: see over

Dear editor

Please see the following revisions that have been made to the manuscript:

Reviewer 2

Abstract

To clarify that it is the principals' views that the educators and parents consider these items most important

Sentences two and three were changed to include the words "as perceived by"

Methods

This also needs to be clarified in the section on Questionnaire (in Methods) para 3, that it is the principal's perceived view of the priorities of learners, educators and parents.

The words "as perceived by" was added to the third paragraph of this section.

Results

General environment line 3: I would like to have seen the actual %. *The word "all" was included in the sentence*

Last sentence: The final sentence refers to child abuse and neglect, and relates this to quintile. However, there were no Q1 schools in urban areas, and so the rural/urban difference is not presented and may account for this difference. this information might be important.

We re-analysed the data for this particular section using the 5 strata that was used for sample selection. The results are presented in Table 3 and the paragraph now states that it is "clear that principals from schools in the two urban strata were significantly more likely to view poverty and unemployment in the community as problematic. They were also more likely to view crime and violence as a problem in the school and the surrounding community." The last sentence was left as is, because for the child abuse questions the distinction between urban and rural is less clear but the data presented in table 3 can now easily be interpreted by the reader.

These results are discussed in more detail and supported by three additional references in the discussion section.

Discussion

The national curriculum has changed with the introduction of CAPS. The information on schools and curriculum interventions needs to include this.

The following paragraph was added:

"Changes have been made to the National Curriculum since the implementation of the HealthKick intervention. Life Orientation is now called Life Skills and is divided into three study areas: Personal and

Social Well-being, Physical Education and Creative Arts [33]. At this stage, there is not clarity how external health promotion programmes, such as HealthKick, may be integrated into this subject.”

Top of page 14 - who get the income? The school or vendor? Implications are different.

*Apart from the finding that most of the schools participated in the NSNP, a large number had tuck shops on **the school premises** or vendors selling food items **to learners through the school fence**.*

*The next paragraph explains that: “**The small profit made is either used by the school to provide extra services to learners, or for vendors to make a living.**”*

Reviewer 1

Minor Essential Revisions

The author can be trusted to make these. For example: missing labels on figures, the wrong use of a term, spelling mistakes.

The Figure in this manuscript was not reflecting the data suitably and therefore has been removed and replaced with a Table. To report these data more accurately, we have provided all the selected health priorities for the different groups. This will also address both reviewers’ concerns about the principals’ perceptions surrounding health priorities (Table nos. have thus changed). The text under the Results sub-heading, Health and health-related priorities and programmes, has subsequently changed as follows:

“Table 4 shows principals’ perceptions about the health priorities for learners, educators and parents. They were asked to rank the top three health problems for each of these groups. Principals perceived an unhealthy diet (50%) and to a far lesser degree, lack of physical activity (24%) and underweight (16%) as the top three health priorities for learners. They cited lack of physical activity (33%) and NCDs (24%) most often as main health priorities for educators. Physical activity was also selected most often as the second priority (23%), while overweight (22%) ranked third. For parents, substance abuse (66%) and tobacco use (31%) were cited as the two main health priorities, respectively.”

Limitations of the study: *The following was added to the conclusion: “A limitation of the study is that some of the findings, such as those on health priorities within the school community, rely only on the perspective of the school principals and the views of learners, parents and educators were not obtained.”*

TITLE

“HealthKick” - Formative assessment of the health environment in low-resource primary schools in the Western Cape Province of South Africa

Consider:

“HealthKick” - Formative assessment of the BEHAVIOURS within health environment OF low-resource primary schools in the Western Cape Province of South Africa

We prefer to keep the title as in the original manuscript because the part of the formative assessment presented here really only concentrated on the environments at the primary schools relating to nutrition and physical activity.

ABSTRACT

Background

“This study evaluated the primary school health environment in terms of being conducive to healthy nutrition, sufficient physical activity and prevention of nicotine use, with the view of planning a school-based health intervention.” It might be that the authors used the term “health environment” since it is the terminology found in some of the literature that was cited. I would, however, not use the term “health” environment, since the environment is a given structure/setting, in this case the setting being low-resource primary schools. Resources and behaviours within the environment can differ between schools. The behaviours and resources would, in the end, influence the health profile of the school and can either make it a “healthy” or “unhealthy” environment (or supportive/unsupportive environment for healthy behaviours), but not a “health” environment.

Consider:

This study evaluated the BEHAVIOURS AND RESOURCES within primary school health environments in terms of being conducive to healthy nutrition, sufficient physical activity and prevention of nicotine use, with the view of planning a school-based health intervention.

Alternatively:

This study evaluated the BEHAVIOURS AND RESOURCES within primary school health environment in terms of being conducive to Healthy GOOD nutrition PRACTICES, sufficient physical activity and prevention of nicotine use, with the view of planning a school-based health intervention.

See comment under “title”. The following change was however made: This study evaluated the primary school ~~health~~ environment in terms of being conducive to ~~healthy~~ good nutrition practices ~~nutrition~~, sufficient physical activity and prevention of nicotine use, with the view of planning a school-based health intervention.

Results

Principals ranked the top two health priorities for learners as an unhealthy diet (50%) and to a lesser degree, substance abuse (15%). Lack of physical activity (33%) and non-communicable diseases (NCDs; 24%) were the main health priorities cited for educators. For parents, substance abuse (66%) and non-communicable diseases (22%) were prioritised. It was not clear to me initially that the principal ranked the learners’, educators’ and parents’ priorities. It seemed as if these groups ranked their own priorities. I suggest you rephrase these sentences to read:

Principals ranked the top two health priorities of the learners, educators and parents. For learners an unhealthy diet (50%) and to a lesser degree, substance abuse (15%); for educators: lack of physical activity (33%) and non-communicable diseases (NCDs; 24%) and for parents, substance abuse (66%) and non-communicable diseases (22%) were seen as priorities.

Principals perceived ~~ranked~~ the top two health priorities for learners to be ~~as~~ an unhealthy diet (50%) and to a lesser degree, substance abuse (15%). They cited lack of physical activity (33%) and non-communicable diseases (NCDs; 24%) ~~were~~ as the main health priorities ~~cited~~ for educators, ~~by the principals~~ while ~~For parents~~ substance abuse (66%) and non-communicable diseases (22%) were prioritised for parents.

2nd last sentence (separate sentences and start new sentence with “However,...”)

All schools reported having physical activity and physical education in their time tables. However, not all schools offered this activity outside the class room

All schools reported having physical activity and physical education in their time tables, however, not all ~~schools~~ of them offered this activity outside the class room.

Conclusion

It is clearly documented that school environments offer extensive and ideal settings for health promotion since learners are a captive audience, they are accessible over prolonged periods of time, children can be reached at influential stages in the life cycle, in a setting where learning is the norm and where the broader community can be reached. Thus, the setting (environment) is seen to be ideal, but BEHAVIOURS AND RESOURCES within the environment/setting is not always ideal.

I would suggest you consider the following:

Evidently, these show that BEHAVIOURS AND RESOURCES within the school environments are not always conducive to healthy lifestyles. To address the identified determinants relating to learners it is necessary to intervene on the various levels of influence i.e. parents, educators, and the SUPPORT SYSTEMS for the school environment including the curriculum, food available at schools, resources for physical activity AS WELL AS APPROPRIATE POLICIES IN THIS REGARD.

To address the identified determinants relating to learners it is necessary to intervene on the various levels of influence, i.e. parents, educators, and the support systems for the school environment including the curriculum, food available at school, resources for physical activity as well as ~~appropriated~~ policies in this regard. ~~and the school policy environment.~~

METHODS

Study design

You state that there are 5 quintiles, but only mention 3. For those readers not familiar with the quintiles used in South Africa, it would be helpful to also mention what the definitions of Q4 and 5 are.

A figure describing the selection process might be helpful.

The quintile in which a South African school is placed depends on a score that reflects the poverty level of the community where it is located (17). This poverty score is based on a pre-determined formula and regulates the amount of funding the school receives. This score take into account weighted household data on income dependency ratio (or unemployment rate), and the level of education of the community

(or literacy rate) as reflected in national census data (17). Quintile one (Q1) is the poorest quintile and quintile five (Q5) the least poor.

Questionnaire and observation schedule

It is stated: “The situational analysis comprised a structured interview with key informants (the principal or delegated person, Table 1) at each school and an observation schedule used to note specific aspects of the environment”

Consider:

The situational analysis comprised a structured interview with key informants (the principal or delegated person, Table 1) at each school and an observation schedule used to note specific aspects of the BEHAVIOURS AND RESOURCES IN THE SCHOOL environment.

We would like to keep this paragraph as in the original manuscript, since this paper reports the physical environment of schools only and not behaviours. See previous comments.

3rd paragraph:

The “deck of cards” is not clear. Were the questions printed on the cards? Where there pictures on the cards? Please clarify.

One important aspect covered in the questionnaire included the identification of health priorities for learners, educators and parents as perceived by the principals. To engage the principals with this aspect of the questionnaire, they were shown a deck of picture cards numbered from one to eight reflecting health problems ranging from “tobacco use” to “health problems related to issues of sexuality, e.g. HIV and teenage pregnancies”. They were then asked to select and rank three cards representing the most pressing health problems which they thought faced learners in the school. This process was repeated for educators and parents.

RESULTS

General environment of the schools (heading) (Second paragraph)

“Over 60% of the schools displayed a signage board with the school’s name advertising a food/beverage company of which a well-known beverage company is the associated sponsor (Table 2).”

Consider:

General PHYSICAL environment of the schools (heading)

Included “physical”.

AND:

Consider rephrasing the sentence to correspond with the sentence in the Discussion section that relates to this finding:

Over 60% of the schools displayed a signage board with the school's name advertising a WELL KNOWN SOFT DRINK company.

Over 60% of the schools displayed a signage board with the school's name advertising a food/beverage company (Table 2), 85% (n=54) of these were sponsored by a well-known soft drink beverage company.

Policy environment and parent involvement (heading) (first paragraph)

"Furthermore, nearly half of the principals indicated that the school governing body (SGB; parents and other stakeholders) played a slight or no role in the management of the school."

Consider:

POLICIES and parent involvement (heading)

This heading has been changed to "Policy environment" only

AND:

"Furthermore, nearly half of the principals indicated that the school governing body (SGB; parents and other stakeholders) played a slight MINIMAL or no role in the management of the school."

Advised by an editor to keep the original format of this sentence, since "slight minimal" is redundant.

Policy environment and parent involvement (heading) (second paragraph)

"Only eight percent of the schools with tuck shops (a school shop mostly selling snack items) had a policy governing this, while 37% of schools with mobile vendors providing food and snack items to the learners had a policy (Table 5)."

Consider:

Consider rewording this paragraph:

Only eight percent of the schools with tuck shops (a school shop mostly selling snack items) had a policy governing this IT'S OPERATION, while 37% of schools with mobile vendors providing food and snack items to the learners had a policy GUIDING THESE ACTIVITIES.

"Only eight percent of the schools with tuck shops (a school shop mostly selling snack items) had a school governing policy for operating purposes, while 37% of schools with mobile vendors providing food and snack items to the learners had a policy guiding these activities (Table 6)"

Nutrition environment at the schools (heading)

Consider:

Nutrition PRACTICES at the schools (heading)

Physical activity environment (heading)

Consider:

Physical activities

For both the above we would prefer to leave them in the original format as we believe this reflects more accurately what would like to convey.

DISCUSSION

1st paragraph:

“The aim of the situational analysis was to provide a baseline assessment of the health environment in low-income primary schools to assist in designing an effective school-based intervention programme to prevent NCDs.

From the observational data, the general environment of the schools appeared to be in good condition, although concerns existed around the hygiene of toilet and bathroom facilities.”

Consider:

The aim of the situational analysis was to provide a baseline assessment of the BEHAVIOURS AND RESOURCES within primary school health environments in low-income primary schools to assist in designing an effective school-based intervention programme to prevent NCDs.

“The aim of the situational analysis was to provide a baseline assessment of the environment in low-income primary schools relating to nutrition, physical activity and smoking behaviour. This would assist in designing an effective school-based intervention programme to prevent NCDs.”

From the observational data, the general PHYSICAL environment of the schools appeared to be in good condition, although concerns existed around the hygiene of toilet and bathroom facilities.

Inserted “physical”.

3rd Paragraph

Another aspect of the general environment which needs addressing is the large number of “name boards” sponsored by a soft-drink company. This would imply that the school supports and promotes the use of these particular soft drinks. Clearly this is not the health promotion message one would encourage, a view which is supported by findings from a qualitative study conducted in Australia with primary school learners [23].”

Consider rephrasing:

Another aspect of the general environment which needs addressing is the large number of SIGNAGE boards ON SCHOOL PREMISES sponsored by a soft-drink company. DISPLAYING THESE BOARDS This would imply that the school supports and promotes the use of these particular soft drinks. Clearly this is not the A health promotion message THAT SHOULD BE one would encourageD, a view which is supported by findings from a qualitative study conducted in Australia with primary school learners [23].

“Another aspect of the general environment which needs addressing is the large number of signage boards on school premises sponsored by a soft-drink company. Displaying these boards would imply that

the school supports and promotes the use of these particular soft drinks. Clearly this is not a health promotion message that should be encouraged, a view which is supported by findings from a qualitative study conducted in Australia with primary school learners [23].”

4th Paragraph

Comment: The perception that time and financial resources are seen as barriers to health promotion points to a lack of insight (not a shortcoming mainly at school level, but rather at the higher Department of Education level) regarding the integration of health promotion into the school system and not only into the school curriculum; i.e. schools as wellness centres and not only education centres. The WHO Health Promoting Schools (HPS) initiative offers insight into these perceived barriers. Consider alluding to this initiative in this regard.

The following changes have been made to this paragraph ([see paragraph 6](#)):

“Changes have been made to the National Curriculum since the implementation of the HealthKick intervention. Life Orientation is now called Life Skills and is divided into three study areas: Personal and Social Well-being, Physical Education and Creative Arts [33]. At this stage, there is no clarity how external health promotion programmes, such as HealthKick, may be integrated into this subject. The WHO Health Promoting Schools (HPS) initiative however provides an existing framework for school health programs [34]. Strengthening this initiative is furthermore listed as a strategy to address inequity and social determinants of health by the South African National Department of Health [35].”

8th Paragraph

“Observations of learner spending during the survey showed that they spend little money at the tuck shop or food vendors.”

Correct tense:

Observations of learner spending during the survey showed that they spent little money at the tuck shop or food vendors.

Corrected.

“The fear of losing the income generated by the sale of these items may however provide a barrier to the willingness of the school and the food vendors to sell healthier food items.”

Consider:

The fear of losing the income generated by the sale of these items, ALTHOUGH SMALL, may however provide a barrier to the willingness of the school and the food vendors to sell healthier food items.

“The fear of losing the income (although small) generated by the sale of these items may however provide a barrier to the willingness of the school and the food vendors to sell healthier food items.”

The following sentence: “Von Holy and Makhoane [32] recommended that baseline research is required to determine the safety and socio-economic importance of foods sold by vendors” does not link well with this paragraph.

Consider:

AN ASPECT THAT WARRENTS FURTHER INVESTIGATION, SPECIFICALLY IN A DEVELOPING COUNTRY CONTEXT, IS A Von Holy and Makhoane [32] recommendation BY Von Holy and Makhoane [32] that baseline research is required to determine the safety and socio-economic importance of foods sold by vendors.

“An aspect that warrants further investigation, specifically in context of a developing country, has been recommended by Von Holy and Makhoane [38]. They suggest that baseline research is required to determine the safety and socio-economic importance of foods sold by vendors.”

9th Paragraph

“Very few schools in this study had clear policies guiding the food, nutrition and physical activity environment, and which are not required by the DOE.”

Consider:

Very few schools in this study had clear policies guiding the food, nutrition and physical activity environment, WHICH CAN BE ASCRIBED TO THE FACT THAT THESE ARE ~~which are~~ not required by the DOE.

Very few schools in this study had clear policies guiding the food, nutrition and physical activity environment. This could possibly be ascribed to such policies not being required by the DOE.

Last paragraph

The fact that 29 schools had designated smoking rooms should be a discussion point. The teachers are clearly not setting an example if this practice still exists.

The following was added:

“However, schools also need to address the smoking practices of educators as a substantial number of schools (n=29) reported having smoking rooms for their staff. Although the tobacco control act [43] allowed this at the time, the negative modelling effect [44] this practice could have on learner behaviour should be considered.”

CONCLUSIONS

Please see comments in Abstract section.

The following was added:

“A limitation of the study is that some of the findings, such as those on health priorities within the school community, rely on the perspective of the school principals only and the views of learners, parents and educators were not obtained.”

General remarks:

From the published manuscript (reference 14) there are details in Table 5 that suggest that a more comprehensive assessment was done, but the scope thereof is not reported or expanded on in this manuscript. It is stated in the Conclusion of reference 14, that: “This study continues to highlight the key role that educators play in implementing a school-based intervention, but that developing capacity within school staff and stakeholders is not a simple or easy task.”

Furthermore, it is stated in reference 14 that:

“These findings emphasise the need to intervene with educators not only because of their potential role as agents of change within the school environment, but also because of their generally poor health status.”

In my opinion, the unhealthy state of the educators’ profile should be eluded to in the Discussion of the current paper, since any further planning of interventions would be influenced by the key role players and their “point of departure”, specifically in the context of the “stages of change” behaviour modification model. There are indications that the health profile of teachers/educators in the rest of South Africa is equally worrying. This will have a huge impact on any further interventions that is planned in schools.

*We hope that it will be acceptable if we do not add this to the discussion because we feel it will be problematic bringing it up if none of the results have been published yet. We hope that this paper will be ready for publication soon and that these concerns can then be addressed. ***

This research and its findings clearly fall within the scope of the WHO Health Promoting Schools (HPS) initiative. Yet, there is no mention of this initiative in the manuscript. Consider including the link that exists between this research and HPS.

This has been addressed under paragraph 6 of the Discussion:

“The WHO Health Promoting Schools (HPS) initiative however provides an existing framework for school health programs [34]. Strengthening this initiative is furthermore listed as a strategy to address inequity and social determinants of health by the South African National Department of Health [35].”

***** Please note that the reference numbers have changed as we have adjusted the paragraph under the Background which refers to the reviewer’s concern:***

“Informed by these guidelines, we undertook a situational analysis of the school health environment at 100 randomly selected primary schools in disadvantaged settings in two education districts of the Western Cape Province. One of the “major themes” of formative research is appropriateness [14] and as such one of the objectives of the situational analysis was to gain an understanding of the primary school environment of the selected schools. In this instance the health focus was on nutrition, physical activity and tobacco use. Our long-term aim was to gather information about the related environment and policies in order to develop a relevant school-based intervention programme [15]. This information was

essential to construct the framework for the subsequent intervention mapping [16] used to develop the intervention. Another objective was to inform the purposive selection of 16 schools for the implementation of the HealthKick intervention. Other components included in our formative assessment were surveys of the health risk factors in educators from the 100 participating schools and another among parents of learners from those schools selected for the intervention. Only the results of the situational analysis are reported in this paper.

Other corrections under the Discussion include paragraphs 4 and 5 for clarity:

The data gathered from a large percentage of the principals provided insight into the surrounding communities. Principals expressed their concerns regarding the existence of poverty, unemployment, crime, violence and especially child abuse in these communities. Principals from the urban district identified their learners were facing these problems to a greater extent as than the principals from rural schools. Clear differences were observed in the perceptions of urban and rural district principals that were not linked to the poverty grade (quintile). These findings are interesting because poverty is, as elsewhere in South Africa, a rural phenomenon, with the rural poverty rate in the Western Cape estimated at 26.1% compared to 20.1% in urban areas [24]. The reasons for this difference in perceptions about poverty and employment could possibly be explained by the fact that poverty and unemployment were referred to in the same question, and schools in the urban district are mostly located in the Cape Town municipality, which has the fourth highest unemployment rate in the Western Cape, despite having the lowest poverty rate [24]. The learners in these schools were, therefore, not only from communities facing high unemployment, but also from the poorest households in the urban district. On the other hand, learners in the rural district were often from agricultural households that face lower unemployment levels, although they have having a higher poverty rate than their non-agricultural counterparts. The reason for the different perceptions about child abuse and neglect is less clear as it appears that living in deep poverty increases the vulnerability of children for abuse and neglect [25].

Perceptions about higher crime and violence in the urban district are supported by findings that the homicide victimisation rates for men aged 15-29 years in the Cape Town townships, where many urban schools are located, are more than twice the average for the country [26]. Furthermore, crime and violence are closely related to alcohol and substance abuse. A review of studies on substance abuse trends found that the Western Cape had the second highest (7.1%) 12-month prevalence of substance use disorders and the highest (18.5%) lifetime prevalence of substance use disorders compared to other provinces [27, 28]. In South Africa, the Western Cape had the highest alcohol consumption of alcohol among males and females in South Africa. Therefore, it is not surprising that principals reported substance abuse to be one of the top three health priorities for parents.

Anniza de Villiers

18 August 2012