

School Nutrition Clubs: A Nutritious Low Hanging Fruit?*

Background

Children in Somalia face harsh conditions in terms of food insecurity and malnutrition. Iron deficiency anaemia (IDA) affects 28% to 55% of non-pregnant women of reproductive age. Iron and Folic Acid (IFA) supplementation show positive effects in addressing IDA but like other therapeutic interventions, it is not a substitute to consumption of nutritious foods. Adolescence is a catch-up period and schools are strategic entry points for providing pertinent nutrition messages. Therefore, influencing dietary knowledge and dietary habits among schoolchildren can effectively address both short and long-term malnutrition. This research presents evidence on the effects of school nutrition clubs delivering peer-to-peer nutrition education. In addition to this, IFA supplementation was provided to adolescent girls in both treatment and control schools.

Data and methodology

We identified 10 schools in Baidoa district with sizeable number of students and that were feasible to roll out the nutrition education. These schools were matched into five pairs according to school characteristics. From each pair, we randomly selected one as treatment and the other as control. A nutrition club was set-up in each treatment schools, and each club consisted of 10 students (five male and five female) who received training in schools by SCI nutrition team. The clubs provided interactive peer-to-peer nutrition education platforms, actively delivering messages on balanced diet for prevention of malnutrition. We conducted a baseline survey in Feb of 2017, which was followed by 6-months of intervention period. An endline survey was conducted in Oct, 2017.

Figure 1: Adolescent girls during IFA Supplementation and nutrition club training

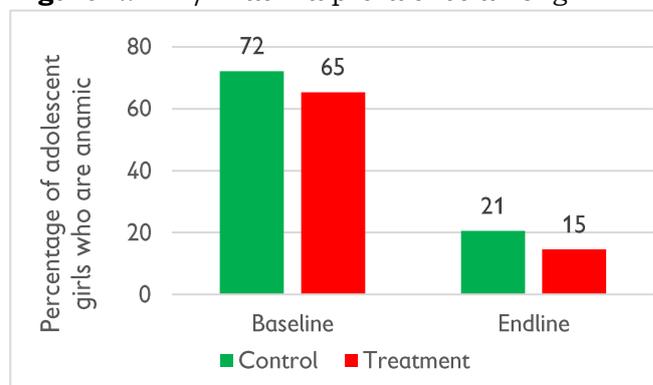


Findings

IFA supplementation significantly reduced anaemia. All adolescent girls who were anaemic in both treatment and control schools received daily IFA supplements for three months and a single-dose deworming tablet. Figure 2 shows the reduction in IDA among adolescent girls after IFA supplementation was provided. IDA prevalence declined by over 50 percentage points. When we consider adolescent girls who were anaemic at baseline, we find 0.20 g/dl increase in haemoglobin levels attributable to nutrition clubs intervention.

This correspond to 7-percentage point reduction in IDA prevalence. In other words, there is significant complementarity between IFA supplementation and nutrition education through clubs.

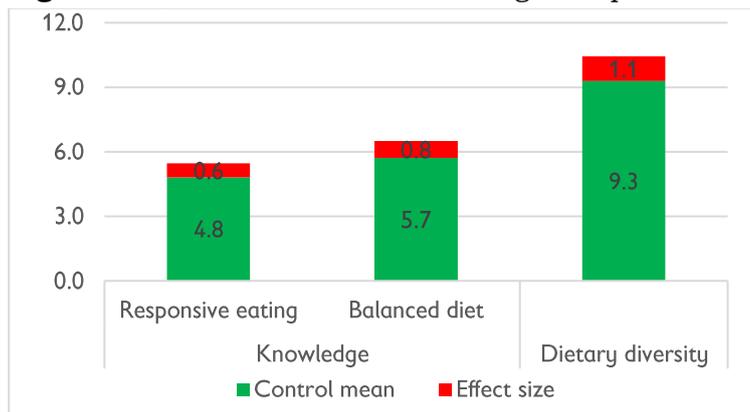
Figure 2: IDA/Anaemia prevalence among



* This Fact Sheet, prepared by Elijah Kipchumba, is based on an evaluation report. For more information, contact elijah.kipkech@savethechildren.org.

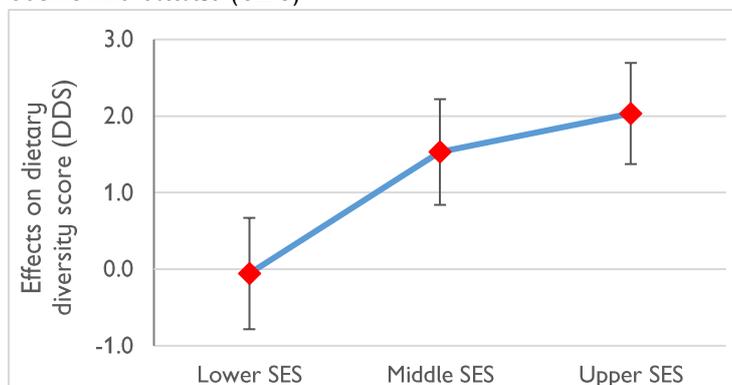
Nutrition clubs in treatment schools were successful in increasing nutrition knowledge and dietary diversity among the general students. We find that nutrition clubs had significant effects on students' knowledge on responsive feeding (i.e. when and how much to eat). Additionally, we see 0.8 standard deviation increase in knowledge on what constitutes balanced diets from a range of locally available food varieties. The children seem to have also been successful in influencing choices of food prepared at home. As the last column on Figure 3 shows, children in treatment schools have 14 percent higher value of dietary diversity score (DDS) in the last 24-hours compared to the children in control group.

Figure 3: Effects on nutrition knowledge and practice



The effects on dietary diversity is higher for children who come from better-off households. Since the intervention did not affect access to food for the children at household, we expect the effects of greater awareness to be higher among those students who come from relatively better-off households. Figure 4 confirms that the effects of nutrition promotion on dietary diversity is substantially larger on students from better-off households. This shows that lack of nutritional awareness is a constraint to improving nutrition status even if the households have access to nutritious food. Children from poorer households have limited options when it comes to food items consumed at household level; hence even if they are aware of the need to diversify diets; they have to content with what is available at home.

Figure 4: Effects on dietary diversity by baseline socio-economic status (SES)



Most importantly, better diet also resulted in significant effects on their health status. Our study shows high prevalence of underweight students at baseline where eight in every 10 students were underweight based on body mass index ($BMI \leq 18.5 \text{ kg/m}^2$). We explore if changes in dietary diversity correlated with changes in BMI. Figure 5 shows the effect on BMI is 1.74 for those who had improved DDS due the nutrition club intervention. Consequently, the rate of underweight has reduced by 15 percentage points for these students. This shows a clear process of change, whereby the nutrition promotion through nutrition clubs increased students' dietary knowledge, improved dietary diversity and resulted in better health status.

Figure 5: Impact on Students' BMI and Underweight

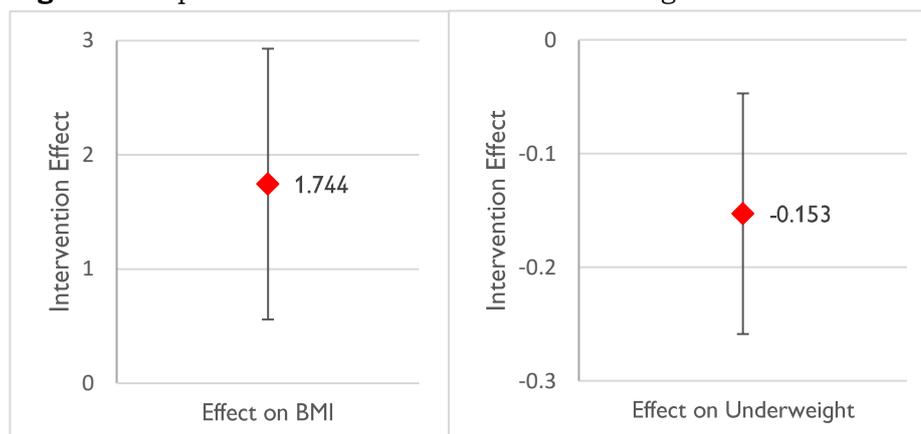


Figure 5 shows the effect on BMI is 1.74 for those who had improved DDS due the nutrition club intervention. Consequently, the rate of underweight has reduced by 15 percentage points for these students. This shows a clear process of change, whereby the nutrition promotion through nutrition clubs increased students' dietary knowledge, improved dietary diversity and resulted in better health status.

In conclusion, nutrition clubs in schools prove to be an effective tool in addressing undernutrition among schoolchildren. Its effectiveness is constrained by access to food at household level. This shows the need to not only address knowledge constraints but also availability of diverse food at household level.