Malnutrition: Its Impact on Attendance among Primary School Pupils in Kirie Division, Embu County

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Abstract
This study seeks to evaluate the causes of malnutrition its extent and the effects it has on participation in learning among primary school pupils. The crucial role nutrition plays for developmental, conductive and behavioral outcomes in life’s early stages is often not well understood and appreciated by schools and parents. Kirie division is among the divisions greatly affected by irregular rain and inadequate food supplies due to drought. In this regards, it is necessary to evaluate the malnutrition effects on learning ability of children.

Malnutrition is a medical condition where one is weak or ill because he/she doesn’t eat enough, or the right kind of food. Descriptive research design was adopted. The study covered 10 schools where class one pupils were obtained from each school. Five teachers and 5 parents were selected from each school. The data was collected by use of two questionnaires, one for the teacher and the other for the parent. An interview schedule was used for the pupils. Data was analyzed by use of excel programme and presented in frequency tables, bar graphs and pie charts. From the study, it was found that poor malnutrition had an effect on learning due to increased infections, diminished cognitive ability and low school attendance rate. By improving on the feeding programme, the learners can continue to attend school. Basic needs should also be provided for.

Keywords: Malnutrition, Attendance

1.1 Headings

1.1.1 Background of the study

The nutrition quality of our diet affects our wellbeing but it has greater impact on children whose bodies and minds are still growing. Nutritional deficiencies can seriously damage a child’s neural development, possibly leading to lower IQ and learning deficiencies. Studies by neuroscientists have found that low-quality nutrition during childhood can be detrimental to the development of cognitive capabilities, such as learning, problem solving and memorizing. Early malnutrition can lead to deficiencies in vision, fine motor skills, language and social skills as well as an array of chronic illness lasting well into adulthood. The crucial role nutrition in the early stages of life is not well understood and therefore not given priority.

According to a study by the American school of health association, students who had consistently insufficient protein intake scored lowered on achievement tests than their classmates who had adequate nutrition. Students with chronic iron deficiency were more likely to suffer from attention deficit hyper activity disorder. Malnourished children were found to be more prone to infections and illnesses, causing them to miss school and lag behind in their education. Pediatric and pediatric dieticians have long emphasized that giving children a healthy breakfast plays an important role for their nutritional wellbeing. Without a boost at the beginning of the day, young brains cannot function well. To do its work, the brain needs a sufficient supply of healthy fats, proteins, carbohydrates, vitamins, minerals and water.

1.1.2 Problem statement

The crucial role nutrition plays for developmental, cognitive and behavioral outcomes in early stages is often not well understood and appropriately acted upon by the school and parents. Kirie division is among the divisions greatly affected by irregular rains and inadequate food supplies due to drought. In this regard, it was necessary to evaluate the malnutrition effects on the attendance of learners in Kirie division Embu County.

1.1.3 Objectives

This study was guided by the following objectives

- To evaluate the causes of malnutrition among primary school pupils in kirie division.
- To examine the extent to which there is malnutrition among primary schools in kirie division.
- To assess the effectiveness of attendance among primary school pupils in Kirie division.

1.1.4 Roughly 80% of Kenyans live in rural areas and makes out a living a farmers. Poor land quality and chronic water shortages in parts of Kenya have put the country in a constant state of food insecurity, (UNESCO 2005).
The ASAL, home to roughly 30% of the Kenyan population has suffered through the crippling social effects of recently intensifying droughts and food shortages. Kenyans school aged population is among the groups most negatively impacted. In many parts of the world, families urgently support to grow or buy a variety of foods for their children to survive. To effectively fight and improve the childwell-being, nutritious food must be provided. Galloway explains that when learners are not distracted by hunger and the extreme effects of malnutrition, they will be able to concentrate better, understand new material and socialize with both teachers and peers, Galloway (2009).

A laboratory study that involved healthy, well-nourished school aged children found a negative effect of morning fasting on cognitive performance. A test of the speed and accuracy of response on problem solving tasks given to children who did or did not eat breakfast found that skipping breakfast had an adverse effect on their performance in tests, Pillotit (1991). Another study among fourth grade students found that those with least protein intake in their diets had the lowest achievements scores, ASFSA, (1989).

Research Methodology

Research Design
This study adopted descriptive survey research designs where field studies were conducted between May to July 2013, data was gathered to enable the researcher make conclusions.

Target population
This comprised of pupils from the 84 primary schools, teachers and parents in Kirie Division, Embu County.

Sample and sampling procedure
A sample of 150 pupils, 50 teachers and 50 parents were obtained, 15 pupils were selected for the study from every school using stratified sampling techniques, 5 teachers and 5 parents from every school were selected for the study using random sample technique.

Research instruments
The researcher used questionnaires for pupils and interview schedules on parents and teachers for the purpose of gathering data from the respondents. The questionnaires had both open and close ended questions.

CONCLUSION AND RECOMMENDATIONS
Based on the findings of the study, the following recommendations were made.

In order to improve learning participation and abilities among learners, in the area of study and in areas with similar problem, better farming practices should be introduced in order to have better food production. There should be the establishment of proper and organized schools feeding program me, so that all pupils in primary and nursery schools are provided with the basic foods while in the school during all the school days. Provision of education on nutritional health is of great essence for the community of the people living in kirie division. Therefore there should be sensitization program me so that people can learn the necessity of proper nutrition.

Training on better farming practices are also recommended so as to enable the parents to maximize on the available rains especially through the use of draught resistant crops. This courts increase a harvest hence curbing the problem of hunger, food shortage and malnutrition.

Education on the nutritional value of locally available foods is suggested in order to provide knowledge on the foods that can be used to feed the community especially in arid and semiarid areas. This should help people to avoid and present malnutrition problem.

References
Burkingham. Philadelphia


### Notes

**Table 1**

<table>
<thead>
<tr>
<th>Targeted sample</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pupils</td>
<td>150</td>
</tr>
<tr>
<td>Parents</td>
<td>50</td>
</tr>
<tr>
<td>Teachers</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>250</td>
</tr>
</tbody>
</table>

A sample of 150 pupils, 50 teachers and 50 parents were obtained, 15 pupils were selected for the study from every school using stratified sampling techniques, 5 teachers and 5 parents from every school were selected for the study using random sample technique. Therefore, the summary of the respondents who participated in this study were as follows.

**Figure 1**

**Opinion on the major causes of malnutrition in Kirie division**

The teachers who were interviewed attributed cause of malnutrition to famine while the others said that the major cause of malnutrition is the ignorance of the parents. This shows that the major cause of malnutrition is famine in the area which can be attributed to consistent crop failure in the division.
Table 2  
Responses on common deficiency diseases in the school

<table>
<thead>
<tr>
<th>Deficiency disease</th>
<th>frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scurvy</td>
<td>9</td>
</tr>
<tr>
<td>kwashiorkor</td>
<td>7</td>
</tr>
<tr>
<td>Anemia</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
</tr>
</tbody>
</table>

The study showed that the most prevalent deficiency disease is scurvy which had a frequency of 9, kwashiorkor was the next common disease with a frequency of 7 followed by anemia with a frequency of 4. It can be concluded that the high frequency of scurvy in comparison to other diseases was due to the low crop harvest rates in the area, may be due to inadequate fruits and vegetables which would help to prevent the disease.

Figure 2  
Responses on how malnutrition affects attendance of pupils.

7 teachers attributed malnutrition effects on attendance to poor concentration due to hunger while 13 attributed it to absenteeism from school due to diseases.
Responses on whether the parent had any of his/her children malnourished

Figure 3
Responses on whether the parent had any of his/her children malnourished

![Bar chart showing responses on whether the parent had any of his/her children malnourished.]

Figure 4.8 indicate that 18 parents out of the 30 respondents had experienced malnutrition in their children. 12 had not. This shows that malnutrition was common in the area.

Responses on whether pupils take breakfast before going to school

Figure 4
Responses on whether pupils take breakfast before going to school

![Bar chart showing responses on whether pupils take breakfast before going to school.]

Figure shows that 120 pupils, out of the interviewed 150 did not take breakfast before going to school. Only 30 pupils took breakfast. This shows that most of the pupils went to school while hungry and this could therefore lower their ability to concentrate in class work.
Responses on whether pupils carry midday snack while going to school

Figure 5
Responses on whether pupils carry midday snack while going to school

Figure 4.10 shows that 97% of the pupils did not carry midday snack to eat in between the lessons. Considering that most of the pupils do not take breakfast, and then it means they are unable to concentrate in class due to hunger.

Figure 6
Responses on why pupils miss school

From the responses indicated in figure 4.12, most of the children miss school due to sickness. This could be due to increased vulnerability to diseases as a result of poor nutrition. This could be one of the effects of malnutrition on learners’ participation in school.
Table 3
Effect of malnutrition to the learners’ in class

<table>
<thead>
<tr>
<th>EFFECT</th>
<th>NUMBER OF TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absenteeism</td>
<td>12</td>
</tr>
<tr>
<td>Lack of concentration</td>
<td>14</td>
</tr>
<tr>
<td>Failure to finish homework</td>
<td>10</td>
</tr>
<tr>
<td>Truancy</td>
<td>15</td>
</tr>
<tr>
<td>Sleeping in class</td>
<td>12</td>
</tr>
</tbody>
</table>

According to the results in the table above, absenteeism, lack of concentration in class, failure to finish classwork, truancy and sleeping in class are the major effects of malnutrition among the learners in school.
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