

TAKE-HOME RATIONS ON PRE-PRIMARY PUPILS' ENROLLMENT IN PUBLIC PRIMARY SCHOOLS IN SABATIA SUB-COUNTY, VIHIGA COUNTY, KENYA

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Abstract

Food provision has been seen as critical to the successful learning of pre-primary pupils. Even though the programs were, aimed at increasing student enrolment and retention, they were, executed with varying degrees of success across the country. Thus, the purpose of the study was to evaluate influence of take-home rations on pre-primary pupils' enrollment in public primary schools in Sabatia Sub-County, Vihiga County, Kenya. It adopted a descriptive survey research design, with a target population of 571 persons including 33 Head teachers, 524 Teachers and 14 Members of the county assembly Board. The sample size of 234 persons was determined using the Krejcie & Morgan table (1970). The researcher collected data using questionnaires and interview guides. The instruments were validated by the supervisors. Quantitative data was analyzed using descriptive and inferential statistics and presented in tables, while qualitative data analyzed in themes and sub themes and presented using quotations. The study established that school feeding programme like take-home rations, on-site meals, home-grown and community school influence pre-primary pupils' enrollment in public primary schools. It was therefore recommended that there should be a consideration of different modalities of school feeding programme like take-home rations, on-site meals, home-grown and community based as this will enhance pre-primary pupils' enrollment in public primary schools. The information provided by this research will benefit policymakers, community members and academicians.

Keywords: Enrollment, take-home rations, pre-primary pupils'

INTRODUCTION

Over the years, the phrase “school feeding” has been used to refer to the distribution of snacks or meals at school to minimize children’s hunger during school day. School feeding has been proved by the World Food Program (2014) to be an effective method of promoting school attendance. The World Food Programme (WFP) as well as other partners supply SFP, however, it faces several challenges in developing countries, which would include high levels of poverty, resource limitations due to the large number of children who require government aid and rough terrain. Costs, as well as the issue of sustainable development given the cost of SFP but rather severe environmental conditions including severe droughts is also a challenge (Songa, 2011). Despite these obstacles, a lot of global research demonstrates that SFP might have a considerable impact in promoting school attendance in addition to enrollment in some locations. Food lured 30,000 youngsters to school in disadvantaged rural areas in Asia, notably Armenia (Chant & McIlwaine, 2018). Furthermore, research conducted in India discovered that 15% of female schoolchildren were, drawn to enrolment by mid-day meals (Shafii & Shafii, 2014). This demonstrates why the SFP is important in classrooms and cannot be overstated.

School canteens enhanced enrollment, regular attendance, and continuously reduced repetition as well as dropout rates in underprivileged communities in Burkina Faso. This area has higher rates of success on national exams because of the closure of local school’s canteens was, followed by high absenteeism. Just the advent of food supplies in the school canteen begins the school year (Commonwealth Secretariat and Reiser, 2012). Moreover, a three-month’s study in Malawi on SFP discovered a 36% improvement in attendance as well as a 5% increase in enrolment (Yendaw and Dayour, 2015). According to an investigation done in Nepal, 5% of school-aged children were underdeveloped, whereas 27% of children had high nutritional condition (Roth, 2011). Another research done in Ghana discovered that children who were malnourished did arrive at school late than well-fed children and completed very few years of school (World Bank, 2007). SFP insufficiency might lead to poor health, and children with poor health attend school afterwards or do not attend at all, according to Croll, Attwood, and Fuller (2010). As a result, SFP must promote initial enrolments along with reducing dropout levels.

SFP has been, used in primary schools in Kenya for 30 years. The Kenyan government launched a school milk program in conjunction with the World Food Programme (WFP) in 1979, reaching 220,000 pupils in pre-school as well as primary school. It increased over time to include 1.2 million primary school students (Songa, 2011). With WFP help, the Government Arid as well as Semi-Arid Areas (ASALs) combined with selected schools in big metropolitan slums have launched the Regular School Feeding Programme (RSFP). The concept entails giving midday meals to students in pre-primary and elementary schools, not forgetting the Non-Governmental Organizations (NGOs) that have also helped to make SFP available. They work in unplanned settlements as well as recipient communities. Almost 720,000 primary school children were fed by the Regular School Feeding Programme (RSFP) in 2011 with WFP assistance. SFP has expanded food-insecure areas not served by RSFP or the Home-Grown School Feeding Program (HGSFP), helping to lessen the severe famine-related consequences that are frequent in those areas. Because of the ongoing food shortage, it also reduces vulnerability brought on by hunger and malnutrition (Songa, 2011).

The Kenyan government has pushed HGSFP to boost domestic food production while also ensuring that children attend school in collaboration with the Millennium Development Project Hunger Task Force (MDPHTF) and NEPAD. The HGSFP has a target population of 590,000 children as of 2011 (Bhargava, 2006). The Ministries of Health (MoH), Agriculture (MoA), Education (MoE), and (World Bank, 2012) launched another type of SFP known as Njaa Marufuku in 2006. Njaa Marufuku targeted communities with high levels of poverty, dropout, low academic performance, and malnutrition to alleviate hunger in Kenya. By incorporating school lunches, nutrition education, mother-child health initiatives, and nutrition programs, aspired toward expanding the health, diet of underprivileged people along with children. As a result of these programs significantly raising enrollment in certain fields, it has benefited 37,222 students in 56 schools as of 2011. According to a study conducted in Taita Taveta, one of the ASAL districts, SFP augmented school enrollment from 78 percent to 84 percent in 2004 and additionally increased children's nutritional intake as well as school resources such as water provision in addition to schoolrooms. Additionally, it helped local communities besides school committees recognize and establish businesses that could support SFP in the coming days. SFP stands crucial because it may enhance children's wellbeing. Significant levels of poverty, especially in developing nations, prevent its implementation because it affects children's interest in school, especially if their families are unable to provide for them. Although SFPs continue, not, supplied in most pre-schools, they can be utilized to treat transitory hunger within schools (Lopez, Krause, Mackay, & World Bank, 2012).

The number of pupils admitted to a school is referred to as enrolment. Enrollment is predisposed by features such as a school's academic achievement, its atmosphere and facilities, the quality of its instructors, and the curriculum it uses (Alyani, Osman & Bachok, 2014). Piaget (1964) supports pre-school instruction in all aspects of child development (intellectual, physical, emotive, social as well as moral). The early years of a child's growth, from 0 to 6, are critical. This growth needs a suitable environment, which may be given especially in pre-schools. In support of the development of early childhood education in the 18th century, Rousseau (1979) acknowledged the importance of high-quality pre-school care and instruction in laying the groundwork for the United Nations Convention on the Rights of the Child's article 28 that states that every child has the right to a basic education (MOEST, 2005). This was recognized in both the March 1990 World Declaration atop Education for All in Jomtien, Thailand, besides the World Summit on Children's Rights in New York City whilst, Kenya adopted the following aim because of the United Nations statement: universal access to basic schooling by the year 2000. This signified that everybody, regardless of color, creed, locality, economic background, or cultural customs, should have access to education. Despite this, there has been a low enrollment in official educational programs among the rural poor, squatters, pastoralists, and, most notably, slum dwellers. (Bureau of Educational Research

2014). Ignorance, illiteracy, poverty, sickness, and other factors all contribute to the enrollment problem. These difficulties have had an impact on pre-school enrollment, particularly in the slums. Even though many youngsters are spotted lounging while attending to younger siblings during school hours, enrolment in Mathare Division slum schools is low.

Pestalozzi (1801) advocated for informal education for destitute and homeless children, emphasizing the importance of education in improving the underprivileged. Froebel (2016), who saw the requirement to reawaken the idealistic side of human nature, also emphasizes the necessity of education, with the early years being the most essential time for doing so. As a result, the kid perceives play as just an expression of affection, which he or she identifies with the mother's affection, which determines the child's essential phases of development. Thus, according to Montessori (1936), children are intellectually stimulated; they also learn, respond, and become engaged in life when they encounter love and compassion from others. Along with social, emotional, physical, cognitive, and moral growth, pre-school often introduces a kid to his or her first group education experiences. The fresh setting piques the child's attention and encourages him or her to discover the world. The child builds strong social ties with other children his or her age as well as learns to appreciate adults. These events help youngsters establish a sense of self-esteem. As a result, it is critical that the issue of low enrollment be addressed and children's involvement in formal activities be enhanced in accordance with United Nations Declaration of Human Rights on the right for every child towards basic instruction 1948 (Erikson 2013).

Take-home rations comprise food rations distributed to households, in exchange for children enrolment in schools in addition to a certain level of attendance. Typically, the ration is distributed monthly. To be eligible for the program, students must attend at least 80-85 percent of the school days, which is a typical condition laxly implemented. The welfare gains may be, more spread since the transfer is, directed to the household rather than the child. The family can give the food allotment to whomever they choose or sell it for other commodities or cash. In this regard, the ratio is analogous to an income transfer. Take-home rationing programs focus on enhancing food security at the family level satisfactorily than addressing short-term hunger for children at school (Pollitt, Mitchell, & Marita, 2011).

It is frequently less expensive than in-school feeding, and it does not interfere with learning. In fact, take-home rationing schemes are frequently less expensive to run since they are aimed, for example, at low-income homes. Although it is sometimes impractical in impoverished countries to limit in-school meals to certain students for logistical, especially political purposes, take-home rations are routinely distributed to a chosen group of pupils. For example, the World Food Programme (WFP) occasionally restricts take-home meals to girls, who frequently fall behind males in school attendance. In certain situations, these take-home rations are, given to females as a bonus: an added incentive in locations where all primary-school students receive in-school meals (WFP, 2015). When compared to non-supported schools in Ethiopia, the World Food Programme Schools indicate that Take Home Rations monthly supplemented with vegetable oil improved enrolment of girls, enhancing gender parity, and minimizing class repetition (WFP, 2019). In less than a year, enrollment patterns in the Food for Education (FFE) program illustrated variations centered upon the kinds of Food for Education clusters used in schools for either take-home rations or feeding (Gelli et al., 2017).

Nutritional and health status are powerful influences on a child's learning and how a child performs in school. Children who lack certain nutrients in their diet do not have the same potential for learning as healthy and well-nourished children. Children with cognitive and sensory impairments naturally perform less and are more likely to repeat grades. The irregular school attendance of malnourished and unhealthy children is one of the key factors for poor performance (Uduku, 2011). Malnutrition remains one of the major obstacles to human well-being and economic prosperity in developing countries (Ecker & Nene 2012; Stevens et al., 2012).

Awojobi (2019) conducted a study on a systematic review of the impact of Ghana's school feeding programme on educational and nutritional outcomes. Both quantitative and qualitative studies were included in the review. Sixteen studies met the inclusion criteria, and they report on the role of Ghanaian's school feeding programme as an intervention that the government is using to improve educational and health outcomes of beneficiaries. Different evaluation methods were used to assess the impact of SFP, six studies used post study design, only one study adopted Difference-in-Differences (DID) technique, five studies used a pre-post study, two studies embraced a cross-sectional study and one study adopted comparative analysis. Outcomes measured by the studies include enrolment, attendance, retention, and academic performance. Others are wasting, thinness and stunting. Supporting evidence shows that the school feeding programme improved educational and health outcomes. However, the evidence of food for education on cognitive development was weak.

Zenebe, Gebremedhin, Henry and Regassa (2018) examined the effects of SFP on dietary diversity, nutritional status, and class attendance of school children in Boricha district, Southern Ethiopia. The finding showed significantly higher mean (\pm SD) of DDS in SFP beneficiaries (5.8 ± 1.1) than the nonbeneficiaries (3.5 ± 0.7) ($P < 0.001$). BAZ and HAZ of the beneficiaries were also higher than their counterparts, which were (0.07 ± 0.93), (-0.50 ± 0.86) and (-1.45 ± 1.38), (-2.17 ± 1.15) respectively ($P < 0.001$). The mean (\pm SD) days of absence from school for non-beneficiaries (2.6 ± 1.6) was significantly higher than that of the beneficiaries (1.3 ± 1.7) ($P < 0.05$). Given the positive effects of the program in improving the DDS, nutritional status, and class attendance of school children, we strongly recommend scaling up the program to other food insecure areas.

well-designed school feeding programmes can promote macronutrient and micronutrient adequacy in Childrens' diets leading to enhanced nutrition and health, decreased morbidity, and increased learning capacities (Jomaa, Elaine McDonnell, & Probart, 2011). Yendaw and Dayour (2015) conducted a study on the effects of the National School Feeding Programme on Pupils' Enrolment, Attendance and Retention: A Case Study of Nyoglo of the Savelugu-Nantong Municipality, Ghana. The study concluded that there is a statistically significant relationship between school meals

quality/quantity and school attendance among pupils and two, a strong linkage was found between the implementation of school feeding programmes and pupils’ retention in schools. What this means is that the strategic policy direction of stakeholders involved in running the programme needs to consider the above key findings contained in the current investigation.

Ibrahim (2017) carried out a study on the role of School Feeding Program Supported by DAL Company in Students’ Enrolment and Drop-out. The result shows that, School Feeding Program has positive roles on school participation and significant effects. The results of the study found a significant increase in enrollment because of school meals. It is observed that the existing program presents more incentive to attract children to school or enables parents send children to school and increase in attendance. This could primarily be due to the adequacy (to some extent, milk) of school meals to augment the nutritional status of children as observed during the study. The School Feeding Program also shows significant positive impacts on drop-out rates also (to some extent) because there are other factors that cause school drop-out.

Methodology

A descriptive survey research approach was utilized for this study. Descriptive survey research design was also effective for identifying variables and hypothetical structures. According to Orodho (2003), a descriptive survey research design was favoured since it was ideal for educational fact-finding and produces a large amount of correct information. It also allowed the study team to collect data at a certain moment in period and utilize it to characterize the disposition of the current disagreements (Cohen, Manion & Morrizon, 2000).

A target population is a collection of people or things from which the researcher hopes to draw conclusions (Mugenda & Mugenda, 2003). Members of the County Education Board, head teachers, and teachers at pre-primary and primary public schools in Sabatia Sub-County under the SFP were the survey’s target respondents. Head teachers and teachers were chosen to participate in the study because they have direct contact with the students and oversaw implementing school meals programs in their schools. Members of the County Educational Board also participated in the research because they oversaw the execution of various educational programs introduced by the county government in schools.

Table 1: Target Population

Category	Target Population
Head teachers	33
Teachers	524
Members of the county assembly Board	14
Total	571

Source: Ministry of Education, Sabatia Sub County Office (2023)

Sampling typically requires analysing a segment of a population to procure information regarding the entire population (Kothari, 2010). Krejcie and Morgan (1970) utilized the table in Appendix V for determining sample size for calculating the sample size for the study. According to the table, a goal of 571 yield a sample size of 234. As a result, there were 14 head teachers, 215 teachers, and 5 members of the county education board, for 234 responders. Simple random sampling was employed during the research. A sampling procedure, as per (Kothari, 2010), was the method used to select the number of subjects for an investigation.

Table 2 Sample size

Category	Target Population	Sample size
Head teachers	33	14
Teachers	524	215
Members of the county education Board	14	5
Total	571	234

Interviews for members of County education board and questionnaires for head teachers and teachers were utilized for gathering the data. The questionnaires were dispersed by the researcher to the respondents, head teachers, and teachers besides being, gathered in one day, providing respondents ample, opportunity to complete them. For privacy concerns, the questionnaire responses were preserved under lock and key after this period. Each respondent’s information were collated and documented for analysis and interpretation. Later that week, an appointment with county school board members were scheduled and completed surveys were gathered for data analysis.

To prepare and arrange data for analysis, the Statistical Package for Social Sciences (SPSS) version 28 were exploited. Descriptive analysis entailed computing several measures of central tendency, such as mean frequencies as well as standard deviation. Testing the link between variables was part of inferential statistical analysis. The quantitative data from surveys were coded using symbols based on pre-primary student enrolment factors. The gathered information was then tabulated, and the chi-square test was used to determine the magnitude of the association linking the variables. In contrast, based on enrolment variables, the qualitative data from the interviews were thematically examined.

Results

The study adopted descriptive and inferential statistical analysis. This helped to determine the influence of take-home rations on preprimary pupils’ enrollment in public primary schools in Sabatia Sub-County, Vihiga County, Kenya. For

analysis, descriptive statistics (frequency, percentage, and mean distribution) for the level of agreement on a five-point Likert scale of the variable, take-home rations were determined and summarized in Table 3.

Table 3: Descriptive statistics for take home rations and preprimary pupils’ enrollment in public primary schools.

Statements		SD	D	U	A	SA	MEAN
Take home rations in the form of products increases preprimary pupils’ enrollment	F %	5 2.4	6 2.9	15 7.2	99 47.6	83 39.9	4.20
Take home rations in the form of hot cooked meals improves preprimary pupils’ enrollment	F %	4 1.9	30 14.4	10 4.8	85 40.9	79 38.0	3.99
Take home rations in the form of dry rations increases preprimary pupils’ enrollment	F %	5 2.4	34 16.3	4 1.9	65 31.3	100 48.1	4.06
Take home rations monthly supplemented with vegetable oil improve preprimary pupils’ enrollment	F %	30 14.4	12 5.8	9 4.3	59 28.4	98 47.1	3.88

Table 3 shows that 99(47.6%) of the respondents agreed with the statement that take home rations in the form of products increased preprimary pupils’ enrollment, 83(39.9%) strongly agreed, 15(7.2%) were undecided, 6(2.9%) disagreed and 5(2.4%) strongly disagreed with the statement. The study findings suggested that the respondents agreed (Mean=4.20) that take home rations in the form of products increased preprimary pupils’ enrollment. This was supported by an interviewee who had the following to say;

... Enrollment of children in schools is increased because of low-income families supplied with take home food products become motivated to send their children to school. Consequently, the regular school attendance is attributable to school feeding programme ... Male Participant, 46 years, Members of the county education Board.

This implies that take home rations in the form of products increased preprimary pupils’ enrollment. This is in line with Adekunle and Ogbogu (2016) that the school feeding programme increased learning opportunities such as attendance, enrollment, punctuality, retention, and performance in outdoor activities.

Similarly, 85(40.9%) of the respondents agreed with the statement that take home rations in the form of hot cooked meals improved preprimary pupils’ enrollment, 79(38.0%) strongly agreed, 30(14.4%) disagreed, 10(4.8%) were undecided and 4(1.9%) strongly disagreed with the statement. It emerged from the study that the respondents tended to agree (Mean=3.99) that take home rations in the form of hot cooked meals improved preprimary pupils’ enrollment. This implies that taking home rations in the form of hot cooked meals improve preprimary pupils’ enrollment. This supports the findings of Dheressa (2011) who also found that the school feeding programme was efficient in increasing school attendance due to children’s access to a school meal.

Additionally, 100(48.1%) of the respondents strongly agreed that take home rations in the form of dry rations rich in nutrients increased preprimary pupils’ enrollment, 65(31.3%) agreed, 34(16.3%) disagreed, 5(2.4%) strongly disagreed and 4(1.9%) were undecided on the statement. The study findings suggested that the respondents agreed (Mean=4.06) that taking home rations in the form of dry rations rich in nutrients increased preprimary pupils’ enrollment. This was supported by an interviewee who had the following to say;

“... School meals attract pupils to school by increased attendance and retention rate. Pupils who lack certain nutrients in their diet do not have the same potential for learning as healthy and well-nourished children...” Female Participant, 48 years, Members of the county education Board.

This implies that take home rations in the form of dry rations rich in nutrients increased preprimary pupils’ enrollment. This supports the findings of Jomaa, Elaine McDonnell and Probart (2011) that well-designed school feeding programmes can promote macronutrient and micronutrient adequacy in Childrens’ diets leading to enhanced nutrition and health, decreased morbidity, and increased learning capacities.

Lastly, 98(47.1%) of the respondents strongly agreed with the statement that take home rations monthly supplemented with vegetable oil improved preprimary pupils’ enrollment, 59(28.4%) agreed, 30(14.4%) strongly disagreed, 12(5.8%) disagreed and 9(4.3%) were undecided on the statement. It emerged from the study that the respondents tended to agree (Mean=3.88) that taking home rations monthly supplemented with vegetable oil improved preprimary pupils’ enrollment. This implies that take home rations monthly supplemented with vegetable oil improve preprimary pupils’ enrollment. This agrees with the WFP (2019) that Take Home Rations monthly supplemented with vegetable oil improved enrolment.

These descriptive statistics of objective one was followed by a Chi-square test of association. The Chi-square test at $p \leq 0.05$ significance level illustrating statistically significant association between take-home rations and preprimary pupils’ enrollment in public primary schools in Sabatia Sub-County, Vihiga County, Kenya is as summarized in Table 4. To achieve this, the hypothesis below was tested.

H₀₁: There is no significant association between take-home rations and preprimary pupils' enrollment in public primary schools in Sabatia Sub-County, Vihiga County, Kenya.

Table 4: Chi-square test of association between take home rations and preprimary pupils' enrollment in public primary schools

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	482.534 ^a	144	.000
Likelihood Ratio	323.123	144	.000
Linear-by-Linear Association	103.262	1	.000
N of Valid Cases	208		

a. 162 cells (95.9%) have expected count less than 5. The minimum expected count is .02.

Table 4 shows that the p value ($p=0.000$) for take-home rations was less than 0.05. Therefore, the hypothesis, "there is no significant association between take-home rations and preprimary pupils' enrollment in public primary schools in Sabatia Sub-County, Vihiga County, Kenya" was rejected. This implies that there is statistically significant association between take-home rations and preprimary pupils' enrollment in public primary schools in Sabatia Sub-County, Vihiga County, Kenya.

Conclusion

The study findings suggested that the respondents agreed that taking home rations in the form of products increased preprimary pupils' enrollment. Similarly, it emerged from the study that the respondents tended to agree that taking home rations in the form of hot cooked meals improved preprimary pupils' enrollment. Additionally, the study findings suggested that the respondents agreed that taking home rations in the form of dry rations rich in nutrients increased preprimary pupils' enrollment. Lastly, it emerged from the study that the respondents tended to agree that take home rations monthly supplemented with vegetable oil improved preprimary pupils' enrollment. Chi-square test of association revealed that there is statistically significant association ($p=.000$) between take-home rations and preprimary pupils' enrollment in public primary schools in Sabatia Sub-County, Vihiga County, Kenya.

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