

INTERNATIONAL RESEARCHERS

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Volume No 1 Issue No.1 March 2012

www.iresearcher.org

ISSN 2227-7471

THE INTERNATIONAL RESEARCH JOURNAL "INTERNATIONAL RESEACHERS"

www.iresearcher.org

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CHILDREN HEALTH NEEDS AND IT'S INFLUENCE ON PRE-SCHOOL EDUCATION ENROLMENTS

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Abstract

Available literature shows that in Kenya enrolment of children in pre-school education is low. It is believed that failure to adequately meet children's health needs might be leading to the children's low enrolment in pre-school education and in other levels of education. It is for this reason that this study is designed; to establish and document children's health needs in relation to low enrolment especially in Imenti North District where 52% of pre-school children do not attend pre-school and in particular 64% in Miriga Mieru West Division of the District. The main objective of this study is to establish the relationship between children's health needs and enrolment in pre-school. The study has used a correlation design employing a survey method. The independent variable is health status. The dependent variable is children's enrolment in pre-school. The sample size of 390 parents is selected and used in the study. Children's households are systematically sampled whereas Imenti North District is sampled purposively. Miriga Mieru West Division is selected due to its high population of pre-school age children (78,201) in comparison to other divisions in the district such as; Miriga Mieru East with 64,117, Timau with 55,292 and Buuri with 45,610 as well as its low pre-school enrolment rates (64%). The study has used a questionnaire for parents and anthropometric tools for data collection. The researcher administered the questionnaire to parents of pre-school children both with children not attending and children attending pre-school. The t-test (two tailed) for testing equality of means for independent samples is used to test the hypothesis (H02) A t-test (two tailed) for independent samples found no relationship between health status and enrolment in pre-school. This study concludes that basic needs are important and unless they are met we will continue to have large numbers of children not attending the pre-school education continuing to increase.

1. INTRODUCTION

Children below five years are highly vulnerable to illnesses such as cough, malaria, common cold, diarrhoea and pneumonia (ACC OR SCN, 1998; Fentiman, Hall & Bundy 2001). KDHS (2003) established that within the early childhood years of life (0-6) most children suffered from diseases such as; acute Respiratory Infections, Diarrhoea, Measles, Malnutrition, Typhoid, Cholera, and Leukaemia among others. These diseases can be controlled through health care practices given to children when they fall sick by parents. Among the practices expected to be given is taking children for medication when they fall sick. The above mentioned diseases are said to be common in Kenya and it is likely that they may reduce the children's ability to participate in pre-school. In line with this is also the fact that specific caring practices are associated with better nutritional status of children. This is mainly through protection of the children from pathogens which depend on; caregivers' cleanliness and sanitation, use of healthcare services for routine checkups and nursing care for the child during episodes of illness (UNICEF, 1998). It is in this view that this study sought to establish health care practices given to children when they fall sick in Miriga Mieru West Division of Imenti North District.

Children from birth up to 5 years are supposed to be given all vaccinations against childhood diseases, among them one can name; BCG (against tuberculosis), Polio (against poliomyelitis), DTP (against three diseases; Diphtheria, Whooping Cough (Pertusis), Tetanus), Hepatitis B, and Measles. These immunizations are available for Kenyan children. High coverage of immunizations against early childhood diseases is considered to be a safeguard to better nutrition and health (Viteri, 1987). Immunization enhances the quality of life by preventing childhood vaccine preventable diseases (Hussein, 2001). Until early 1990s, children worldwide received the same basic vaccines. But with the introduction of new vaccines such as; Rotavirus, Typhoid vaccine-against Typhoid fever, Hepatitis A, Hemophilus Influenza B-against severe bacterial infection in children as from 4-6 months, Pneumococcal vaccine-against Meningitis and Septicaemia [REVISE SPELLING] (this is specifically for children with Sickle cell disease and children who have undergone Splenectomy as well as children with Nephritic Syndrome on Steroids the difference

between vaccines available for children in rich countries and poor countries as well as between rich and poor families increased (Hussein, 2001). The study only concerned itself with the basic five vaccines that are mandatory to Kenyan children. The study has established that children in Miriga Mieru West Division of Imenti North District are given all the immunizations that are mandatory for Kenyan children, since preventing the preventable diseases led to reduced cases of common childhood diseases and in turn improved children's enrolment in pre-school. Other than immunization there is a key issue that is associated to a child's health and this is access to clean water and sanitation.

Access to clean drinking water is estimated at 89% in urban areas and only 49% in rural areas (KDHS, 2003). Clinical records show that the top diseases reported in Kenya such as Malaria, Upper Respiratory Tract Infections, Skin Diseases and Diarrhoea are sanitary related and inhibit a child's growth (UNICEF, 2003). Sanitation access in urban areas is estimated at 94.8% as compared to 76.6% in rural areas (Millennium Development Goals Report, 2005 & KDHS, 2003). However, even though this population has access to safe drinking water, pollution of drinking water sources is responsible for increased incidences of Malaria, Typhoid, and Cholera in children and other diseases (MDG's, 2005). This study seeks to find out whether parents boil or treat drinking water in their households since drinking water that is not safe leads to increased diseases and in turn affects children's enrolment in pre-school. Illnesses suffered by children contribute to impaired development and growth retardation (ACC/SCN, 1998). In addition, illnesses compromise the nutritional status of children (Piwoz & Preble, 2000). It is also noted that lack of clean water supply and sanitation is the primary reason why diseases transmitted through human waste are so common in developing countries (KDHS, 1998; UN-Habitat, 2003b & UNICEF, 1998). In light of the above facts there was a need to establish the illnesses that pre-school age going children in Miriga Mieru West Division of Imenti North District suffered from as well as establishing the relationship between healthcare practice and enrolment in pre-school.

The Ministry of Health in conjunction with USAID in February and March 2003, indicated that nearly half of all Kenyans who fell ill did not seek medical treatment because they could not afford it, and only 10% of the population had access to health insurance (MOH & USAID, 2005), in 2009 the government of Kenya made medicine affordable for young children. It is important to find out if children are benefiting from such support from the government by establishing whether children are taken for medication when they fall sick. Delayed treatment of children's diseases places children at an increased risk of malnutrition. This study seeks to establish the action taken by parents when their children fall sick.

2. OBJECTIVE OF THE STUDY

The specific objective of the study is to establish the relationship between health status and enrolment in pre-school

3. RESEARCH QUESTIONS AND HYPOTHESES

The study has specifically answered the following basic question:

What is the relationship between health status and enrolment in pre-school?

The study specifically tested the following hypothesis

Ho1. There is no relationship between health status and enrolment in pre-school.

4. SIGNIFICANCE OF THE STUDY

The findings of this study are likely to shed light on the importance of meeting pre-school children's health needs, for future and long-term planning of parents and other stakeholders in early childhood education and development. It is hoped that the findings of this study might produce relevant information that can be used by parents to know the importance of providing their children's health needs and some of the perceived negative outcomes to children if this need is not met. Moreover the results would be useful to the government officials in charge so as to improve social sanitation by informing families through mass media.

5. ASSUMPTIONS OF THE STUDY

- Even when there may be other circumstances constraining pre-school attendance, health needs contribute immensely to non-attendance.
- Mothers or guardians take children to healthcare clinics for checkups as well as for immunizations.

6. METHODOLOGY

6.1 RESEARCH DESIGN

This study is a correlation study employing a survey method. The survey method is found suitable for the present study since it does not require manipulation of variables

6.2 VARIABLES

The independent variable is health status while the dependent variable is children's enrolment in pre-school education.

7. DESCRIPTION AND CHARACTERIZATION OF VARIABLES

The variable healthcare is measured through the health status by asking parents the illnesses their children suffered from, during the last two weeks and the care given when the child was sick. High disease incidences compromised a child's health status and school enrolment. The health status were compared for the children attending and those not attending pre-school and then the results were correlated to establish the relationship between children's health status and enrolment in the pre-school.

8. DEPENDENT VARIABLE

The dependent variable school enrolment is measured by collecting views from parents on their children's pre-school enrolment. This information is used to establish what parents can do to ensure that their pre-school age going children participate in pre-school, as well as find out any other needs related to enrolment in pre-school in Miriga Mieru West Division of Imenti North District.

9. LOCATION OF STUDY

The study is conducted in Miriga Mieru West Division, in Imenti North District which was formerly called Meru central District. The District is approximately 1,141 square kilometres in size with 54,777 households with pre-school age children of 4-5 years. Imenti North District has a population of 243,220 pre-school age children of 4-5 years. Miriga Mieru West Division has an area of 53.2 square kilometres in size and has a population of 78,201 pre-school age children of 4-5 years. It has a total of 18, 658 households having pre- school age children of 4-5 years.

Imenti North District was selected as the main area due to several reasons. First, within Imenti North District, the pre-school system is expansive and this means that the results can be generalized to other divisions in the region. Second, Imenti North District typifies the concept of pre-school trends in both urban and rural areas as parents are fairly well informed and usually willing to send their children to pre-school education. Third, Imenti North District hosts a center that specifically deals with Early Childhood Education in the former larger Meru District regions (DICECE) in comparison to other DICECEs which deal with pre-school education in a specific locality. Lastly, the study is limited to only Miriga Mieru West Division of Imenti North District. The division is selected on the basis of its location and population density.

10. TARGET POPULATION

According to the census report by Central Bureau of Statistics (CBS) of 1999, Miriga Mieru West Division of Imenti North District has got five locations identified and documented. These are Ntima with a population of 10,431 children of 4-5 years, Municipality with 27,349 children of 4-5 years, Igoki with 8,555 children, Ntankira with 19,554 and Nthimbiri with 12,312. The five locations of Miriga Mieru West Division of Imenti North District have a total population of 78,201 pre-school children aged 4-5 years. From this target population of 78,201 children, a sample comprising pre-school age children attending pre-school and children not attending pre-school education was selected. The reason for selecting the two categories of children is due to the fact that only few children (3033) are enrolled in the pre-schools in this division even though it is the division with a higher number of registered pre-schools (60) in comparison to other divisions in the district, (Timau -50, Buuri -41, and Miriga Mieru East with 30 registered pre-schools). The selected division had only 3033 children enrolled in pre-schools with a whopping 75, 168 children not enrolled (Compare appendixes D and E). This Made Miriga Mieru West Division a suitable target population for this study.

11. SAMPLING TECHNIQUES AND SAMPLE SIZE

11.1 SAMPLING TECHNIQUES

Imenti North District was purposively selected as the region to carry out the study especially since pre-school education was considered to be expansive in the region. Miriga Mieru West Division is selected first, on the basis of its location and population density which is identified and documented in the census population by CBS (1999). Second, Imenti North District is selected due to the fact that 52% of children in this district were not attending pre-school and in particular 78, 201 children in Miriga Mieru West Division who are not attending pre-school.

From the target population of 78,201 pre-school age children of 4-5 years, a sample size is selected using a systematic formula. The parents of sampled children are then selected purposively to participate in the study. To administer the questionnaire to parents the researcher used the k-th house systematic sampling formula to reach households with pre-school children that by the time of the study were attending or not attending pre-school.

11.2 SAMPLE SIZE

The sample of respondents was determined using the formula adopted from Mugenda and Mugenda (1999) and Rukangu (2000) as cited in Njoroge, (2002).

$$\text{Thus: } n = \frac{z^2 pq}{d^2}$$

Where by n = the desired sample size, z = the standard normal deviation at the desired confidence level, p = the proportion in the target population estimated to have characteristics being measured, q = 1-p, d = the level of statistical significance set.

For this study, children in Miriga Mieru West Division children are either attending or not attending the pre-school education, that is why there is a need for probability (p, & q), which in this study is considered to be (0.50). These children belong to a household. Parents of the sampled children automatically participated in the study; hence they were selected purposively. This made it necessary to consider Z score probability (1.96)2 at a significant level of 0.05. This can be represented below as:

$$n = \frac{(1.96)^2 (.50) (.50)}{(.05)^2}$$

This calculation yields a sample of 384.16, and since we are dealing with human beings and not figures, the study went to the nearest child which makes the sample to be 385 children of pre-school going age. To have an even number of parents who have children attending pre-school as well as parents with children not attending pre-school. The distribution of parents in the division which was 77 was further divided by two. This division gave a total of 39 parents in the two categories of parents. This change gave rise to the sample size from 385 to 390. However, since the mathematical formula adopted to calculate the sample size in this study applies to a large target population (a target population of 100,000 and above); the results of the study are not any statistically different. Even if the sample size is to be increased again from 390 onwards, the results would not be any statistically different.

12. RESEARCH INSTRUMENTS

The study utilizes the questionnaire for parents in data collection. The questionnaire is constructed following the objective of the study and administered to parents with children attending pre-school and parents with children not attending pre-school.

13. DATA ANALYSIS, RESULTS AND DISCUSSION

13.1 HEALTH STATUS AND ENROLMENT IN PRE-SCHOOL

The objective is to establish the relationship between health status and enrolment in pre-school. The null hypothesis stated that: H02. There is no significant relationship between health status and enrolment in pre-school.

The t-test (two tailed) is used to test this hypothesis and the results are presented in tables 4.1 and 4.2

Table 4.1: Health Status and Enrolment in Pre-School (N= 195)

	Children's enrolment in pre-school	Mean	Std. Deviation	Std. Error Mean
Number of Illnesses	Attending	0.76	0.663	0.047
	Not attending	0.83	0.785	0.056

According to table 4.1, the mean score of health status for children attending pre-school was 0.76 and for children not attending pre-school was 0.83.

The t-test (two-tailed) results are presented in table 4.2.

Table 4.2: Independent Samples t-test, two tailed) for Equality of Means by Number of Illnesses and Enrolment in Pre-school

	A t-test (two tailed) for Equality of Means			
	T	df	Sig. (2-tailed)	Mean Difference
Number of Illnesses	-0.907	388	0.365	-0.067

The t-test (two tailed) is used to establish the relationship between the independent variable health status and dependent variable enrolment in pre-school education. The results in the table above shows the mean difference in the health status for children attending pre-school and children not attending pre-school was -0.067 with, 0.365 level of significance (two- tailed). The results are not significant at 0.05. The null hypothesis was therefore accepted. The results indicate that statistically, there is no significant relationship between health status and children's enrolment in pre-school education ($p = 0.365 > 0.05$).

The lack of relationship between health status and enrolment in pre-school could be due to the fact that, children who were sick attended pre-school since the parents are able to provide medication as well as regular checkups which children who were not attending pre-school were not provided with. However, we cannot ignore the fact that sickness impairs learning because a sick child does not have the energy and motivation to attend pre-school. Also from the means scores of children attending pre-school and children not attending pre-school, the children not attending pre-school have a higher mean of 0.83 when compared to the mean of children attending pre-school education which was 0.76. This implies that even though the relationship was not statistically significant, there are more illnesses suffered by children from the category of children not attending pre-school.

14. SUMMARY, IMPLICATIONS, CONCLUSION AND SUMMARY OF THE FINDINGS RECOMENDATIONS

The study established the relationship between children's health needs and enrolment in pre-school, whose findings are summarized below:

1. There is no significant relationship between children's health status and enrolment in pre-school.
2. The study has established types of illnesses that pre-school age going children in Miriga Mieru West Division of Imenti North District suffered from.

IMPLICATIONS OF THE FINDINGS

3. A sick child cannot learn at school and will miss school regularly and if the illness is prolonged, a child may drop out of school and this reduces the child's ability to participate in pre-school education. A child attending pre-school cannot learn well because he or she spends time thinking about pain instead of focusing on learning. Sick children lack motivation and the energy to play so their learning is impaired. Ensure children are treated when sick

CONCLUSION

The literature reviewed in this study has shown that pre-school education is important and basic needs are equally important. If we are to educate our children to their fullest potential, parents must meet all their children's basic needs, regardless of their ability to provide or meet the necessary needs. This study has shown that nutritional status in terms of wasting and stunting was significant to enrolment in pre-school. There is also a significant relationship between the number of meals and enrolment in pre-school. Although the nutritional status in terms of underweight, household size are not statistically significant at $\alpha = 0.05$ in this study, in practice, they are also important needs in enhancing children's enrolment in pre-school. Therefore, it is not only important to ensure that children's basic needs are met but also to ensure that pre-school age going children attend pre-school. Unless this is done, large numbers of pre-school age going children not attending pre-school will continue to grow.

RECOMMENDATIONS OF THE STUDY

TO THE GOVERNMENT

It was noted in the study that 63 parents (16%) did not take any action when their children fell sick, for this reason, health workers should check that children's health and nutritional needs are met both at home and in the pre-school centres, so as to ensure that children not taken for medication when sick are taken care of.

TO THE PARENTS

It is documented in this study that parents with children not attending pre-schools attributed this to inability to provide them with the health need. Based on this there is need for parents to recognise that they have the power, skills and knowledge to support one another through self-help groups and parent networks instead of waiting for donor support, whereby they can form committees and mobilise parents and the community to avail resources for children from families that are identified as not being able to meet their children's health needs.

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