

**FACTORS INFLUENCING EFFICIENCY OF HEALTH SERVICES IN PUBLIC
SECONDARY SCHOOLS IN KITUI CENTRAL DISTRICT, KITUI COUNTY**

BY

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DECLARATION

Declaration by the Candidate

This Research Report is my original work and has not been presented for the award of a degree in any university.

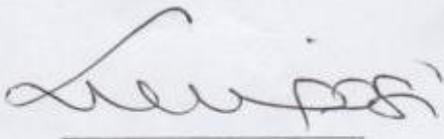


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This Research Report has been submitted for examination with my approval as the University Supervisor.



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DEDICATION

This work is dedicated to my beloved family: My wife Monica for her prayers, support both financially and morally, my son Hosea, daughters; Mumbua, Grace Vaati Museo, for their encouragement, my parents, Also special dedication to my beloved grandmother Priscilla Mwanziu Kithonga (Wekunga),for her inspiration and encouragement.

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God bless.

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ABBREVIATIONS AND ACRONYMS

ADHD	Attention Deficit Hyperactivity Disorder
AIDs	Acquired Immune Deficiency Syndrome
BMR	Baseline Metabolism Rate
DCSF	Department of Children, Schools and Families
DEO	District Education Officer
G/C	Guidance and Counseling
HBM	Health belief model
HIV	Human Immuno-deficiency Virus
P.E	Physical Education
SBMH	School based Mental Health
SHS	School Health Services
SPSS	Statistical Package for Social Sciences
STDs	Sexually Transmitted Diseases
UNESCO	United Nation’s Education Science and Cultural Organization
WASH	Water Sanitation and Health
WHO	World Health Organization

ABSTRACT

School health services are provided for students and are designed to appraise, protect, and promote health. However, this appears not to be the case for Secondary School leavers in Kitui central District of Kitui County. The purpose of this study was to examine the factors affecting operation of health facilities in public secondary schools in Kitui Central District, Kitui County. The study was guided by the following objectives: To establish the kind of health services provided in secondary schools in Kitui Central District, Kitui County; To find out the role played by stakeholders in the provision of health services in secondary schools in Kitui Central District, Kitui County; To investigate the extent to which secondary schools in Kitui Central District, Kitui County commit resources to student's health services; To examine the role of the environment in the provision of health services in secondary schools in Kitui Central District, Kitui County. The study adopted a descriptive survey research design to examine the factors affecting the provision of health care services in Secondary schools in Kitui Central District, Kitui County. The study population comprised of all the secondary schools in Kitui County. The instrument for data collection was a structured questionnaire. The questionnaire was validated by research experts and piloted before use for data collection. Data was analyzed using descriptive and inferential statistics. The study findings will help all education stakeholders to address the issue of health services provision in secondary schools.

CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Since the early part of this century, school health services have evolved to reflect changes both in the society and medical science. In early part of the 20th century, School Health Services were designed primarily to address the prevention of communicable diseases and assess children of all ages for common health problems. Availability and types of school health services provided for younger students determines their physical and cognitive wellbeing. Little is also known about barriers that may exist when providing school health services for students (Wagner, 2002).

Wagner, (2002) goes on to explain that School Health Services are services from medical, teaching and other professionals applied in or out of school to improve the health and the wellbeing of students and in some cases, whole families. These services have been developed in different ways around the world but the fundamentals are constant: medical inspection in schools was first instituted in France in 1886, and then in succession, this example was followed by Belgium, Hungary, Chile and Germany. Great Britain followed in 1908. In the United States, medical inspection was first instituted in New York City in 1892, in Boston in 1894, in Chicago in 1895 and in Philadelphia in 1898.

School health services are provided for students and are designed to appraise, protect, and promote health. These services are designed to ensure access and/ or referral, to services, foster appropriate use of primary health care services, prevent and control communicable diseases and other health problems, provide emergency care for illness or injury, promote and provide optimum sanitary conditions for safe school facilities and environments, and provide educational

and counseling opportunities for the promotion and maintenance of individual, family, and community health (Wagner, 2002).

According to Emmerson, (2008) nearly a third of secondary schools hosted sexual health services in Barnsley, United Kingdom. All schools in Barnsley demonstrated commitment to providing health and wellbeing services that included sexual health. School-based services can increase student's skills and confidence to access health care which can continue into adulthood. Students who have behavioral, emotional or social problems can easily access support within a familiar environment. The evidence is that children who are emotionally or mentally healthier achieve more at school (DCSF, 2008).

According to United States Public Health Service, (1990), World Health Organization (1992), school health promotion should be done in schools. The health choices and behavior patterns adopted during childhood are often maintained into and throughout adulthood. The health choices and behaviors children adopt therefore have implications not only for individual's adult health and personal quality of life but also for community health trends and associated costs.

Praeger and Liebenberg,(1992) asserts that children health behaviors are Influenced by a complex integration of the behavioral patterns they witness and experience from a variety of people, In a variety of settings overtime as part of a comprehensive community response, schools have an important contribution to make in influencing the development of integrated school and community health promotion activities. This component includes elements such as school links with health agencies and professionals, involvement with the local and community and parental involvement.

The WASH model (MC Bride et al 1996) focused on the potential areas for school health promotion activity in its formal and informal training and interactions with school community members. This focus helped to provide broad guidelines about the type and extent of activity that could be undertaken by schools interested in promoting health, while also being broad enough to provide. During the formative development phase, the WASH project was loosely based on Kolbe's (1986) model 'School Health promotion components and outcomes. The potential areas for the School Health promotion activities identified within the model were;

School health education, This component includes elements such as; Curriculum, health teaching, teacher training and resources.

School physical education This component includes elements such as curriculum, sport, and daily physical activity program.

School health environment, this component includes elements such as physical environment, policies and procedures.

School nutrition and food service, this component includes elements such as; healthy canteen or food service, healthy fundraising, lunch time policies, health eating incentives/competitions.

School counseling services, this component includes elements such as access to nurse, dental services, vaccinations and screenings.

School staff health promotion activities, This component includes elements such as healthy food options, personal health information, and regular physical activity opportunities at the workplace.

This study is concerned with the issue of health services and its availability in secondary schools in the selected region. The question of nutrition comprises of food and physical facilities. The concept of health services and its availability at secondary schools is elemental in facilitating an apt growth of the younger teenagers and adolescent students.

1.2 Statement of the problem

Secondary schools in Kitui Central District of Kitui County have experienced student complaints, upheavals and in some cases, strikes. Cases of deaths of students have also been reported in some secondary schools amid student complaints of unavailable or inefficient health services. This information was sourced from DEO's office. It is from this background that this study set out to establish the extent to which secondary schools in Kitui Central District of Kitui County provide efficient health services to their students. It is evident from the Public Health Care Institutions that many students in Secondary Schools are faced with health problems. This could be a direct pointer that the students could be facing nutrition and health related problems right from their homes. Therefore, this study sets out to determine the role of families in the provision of health services to their children.

Many secondary school leavers appear to either have a social, physical or psychological maladjustment. Many school leavers are either emotionally or mentally unhealthy as is manifested in their indulgence petty crimes and use of drugs. This makes this study necessary to try and find out provision of Primary Health Care (PHC) services in secondary schools in Kitui Central District, Kitui County.

A quick look at Health facilities in most Secondary Schools indicates that they lack the necessary infrastructure to support student health services and welfare. This study established the extent to which the school management and the government support health care services in secondary schools in Kitui Central District in Kitui County.

1.3 Purpose of the study

The study examined the factors influencing efficiency of health services in public Secondary Schools in Kitui Central District, Kitui County

1.4 Objectives of the study

General objective

The main objective of the study was to establish the factors influencing efficiency of health services in Public Secondary Schools in Kitui Central District, Kitui County.

1.4.1 Specific objectives

The study was guided by the following research objectives

1. To establish the influence of resources on the health services provided in Secondary Schools in Kitui Central District, Kitui County
2. To determine the influence of support from school management on the provision of health services in Secondary Schools in Kitui Central District, Kitui County
3. To examine the role of the environment in the provision of health services in Secondary Schools in Kitui Central District, Kitui County.

1.5 Research hypothesis

The study was guided by the following research hypothesis:

H0: Provision of resources has no significant influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County

H1: Provision of resources influence the provision of health services in Secondary Schools in Kitui Central District, Kitui County

H0: Support from school management has no significant influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County

H1: Support from school management has influence on the provision of health services in Secondary Schools in Kitui Central District, Kitui County

H0: The environment plays no significant role in the provision of health services in Secondary Schools Kitui Central District, Kitui County

H1: The environment plays a role in the provision of health services in Secondary Schools Kitui Central District, Kitui County

1.6 Significance of the study

The purpose of this study was to examine the factors influencing the efficiency of health facilities in public Secondary Schools in Kitui Central District, Kitui County. The findings of the study could help policy makers to redefine health service provision for secondary school students.

The study gathered and provided useful information to the school administrators; teachers and parents who will in turn help promote health development in the Secondary Schools. The study findings are expected to create awareness, add knowledge and help education planers and managers to focus on health service provision to students in schools. The findings of the study are also expected to bring out linkage between the past and present state of school health services in our school systems.

Further, the study findings could help improve the physical and mental health of students in Secondary Schools in Kitui Central District, Kitui County. This will have a spiral effect on the health of members of the society and hence improved uptake of health services.

Other researchers in the field of health services provision in Secondary Schools stand to benefit from the study findings as these would form a basis for further research in the area of health services provision in Secondary Schools.

1.7 Delimitations of the study

This study was conducted in Secondary Schools in Kitui Central District, Kitui County. The study can be replicated in other districts.

This study focused on School Health Services such as health counseling and follow-ups, school sanitation, personal hygiene of students, nutrition, health instruction, health appraisal identification and availability of safe water, physical facilities and playgrounds.

The literature review covered previous studies in the area of Health service provision in learning institutions. The study used a structured questionnaire and an interview schedule to collect data. The data collection instruments helped to collect data on the health service provision to students in secondary schools in Kitui District, Kitui County.

This study was based on some of the theories in relation to School Health Services which was based on the Health Belief Model (HBM).

The study was conducted between the months of March and July 2014.

The findings may not apply to private secondary schools

1.8 Limitations of the study

The decision to use secondary schools in Kitui Central District could limit the research generalizability to other learning institutions in Kenya, but this was useful for exemplification and the beginning of the debate.

Unavailability of some of the respondents selected through the random sampling table to participate in the study could lead to low response rate. This limitation was countered by the researcher tracing the respondents either within or without the organization and requesting them to respond to the questionnaire. Another limitation to the research was lack of adequate time. There might be elements of bias while some respondents were responding.

Some questions may not be answered fully and this may affect data analysis. This was countered by interpreting the questionnaire intelligently, by looking at the probable intentions of the respondents on the way they would have responded to the other questions. Other challenges were weather and transport related problems.

Financial constraint was another challenge since research is usually an expensive undertaking.

1.9 Assumptions of the study

It was assumed that the subjects of this study was present during the time of data collection and was willing to respond appropriately without being biased.

It was assumed that the sample would be representative of the target population and that the instrument would measure and hold validity of the data.

The study also assumed that the relevant authorities would permit and cooperate with the researcher to allow data collection to take place.

1.10 Definition of significant terms used in study

Secondary school : An institution of higher learning after Primary school.

Public schools : An institution managed by government through the ministry of education and Teachers service commission in which not less than 10 pupils receive regular instruction

Project : A set of related tasks in consulting, coordinated to achieve Specific objectives within a specified period of time (Horn by1997)

Communicable diseases : Diseases which can be transmitted from one person to another.
Stake holders: interested parties

Discipline : Refers to standards of behavior with or towards others along socially acceptable lines

Health services : Medical care services

Support : given assistance to, especially financially; enable to function or act

Environment : Surroundings in which a person lives or operates.

Education stake holders : refers to all players in education sectors. They include Parents, students, teachers and government

1.11 Organization of the study

This study is organized into five chapters: chapter one is the introduction of the study and consists of the background to the study; Statement of the problem; purpose and objectives of the study; research questions; significance; delimitations; limitations, assumptions of the study and definition of significant terms in the study.

Chapter two is the literature review that supports the study and it comprises of introduction of the chapter's contents, then the literature review presented according to the objectives of the study, the conceptual framework is presented at the end of the chapter.

Chapter three is the research methodology and it consists of research design, target population, sampling procedures and sample size, research instruments with their reliability and validity, data collection procedures and analysis, logistical and ethical consideration of the study variables. Chapter four contains data analysis, interpretation and presentation. It starts with the analysis of personal details of the respondents and the rest of the chapter is arranged according to research questions. Chapter five contains of the summary, conclusions, discussions and recommendations of the findings and suggestions for further studies on the factors influencing efficiency of health services in public secondary schools in Kitui Central District Kitui County

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter discusses the available literature on provision of School Health Services. The chapter also gives the conceptual framework upon which the study is conceptualized and developed. The literature will comprise nutritional needs of children, sanitation and hygiene, school health and counseling in Kenya, communicable diseases, HIV/AIDs and its effects on health and education.

2.2 Resources necessary for the provision of efficient health services

The provision of efficient health services depends entirely on many resources. These resources should be available for any meaningful health service to be provided. Such resources include among others; a good nutrition, health services, health education and health living.

2.2.1 Nutrition and student health

Nutrition is simply defined as the science of providing the body with the nourishment it needs for growth, repair and maintenances. School nutrition services promote the health and education of students through access to a variety of nutritious and appealing meals

According to Snatrock (2001) feeding and eating habits are essential aspects of development during the early developmental stages of a child. What a child feeds on determines the physical, and mental or cognitive development of that child. Recognizing that nutrition is a very important aspect and thus school lunch programs should be provided to school children and the lunch

should be of a balanced diet. As a child moves from infancy through the childhood and adolescent years, it requires an increased amount of energy as shown in the Table 2.1

Table 2.1 Energy intakes for children aged 1-13 years.

Age in years	Weight kgs	Height cms	Energy needs calories	Calories ranges
1-3	10	80	1,200	800-1,700
4-6	18	110	1,600	1,200-2,200
7-10	25	135	3,600	1,550-3,200
11-13	30	150	4,200	2,200-3,800

Energy requirements for individual children are largely determined by the baseline metabolism rate (BMR), which is the minimum amount of energy a person uses in a resting state. The energy needs however varies greatly in children of the same size and sex; with very little known about reason for the variance.

According to Kenya’s vision 2030, good health is expected to play an important role in boosting economic growth, poverty eradication and the realization of social goals. It is evident that most Kenyans still do not have access to affordable health care and thus most of the children lack essential nutrition’s and thus are malnourished.

Care givers need to be aware of the essential nutrients child needs, the appropriate amount of sugar and fats needed in children’s diets Flegoal and Troiaho (1998)

2.2.2 Health Services provided in Secondary Schools

According to Kochhar (1997), School Health Services is defined as the school procedures that contribute to the maintenance of health of students and social personnel including health services, health education and health living. Poor health imposes a heavy burden on society and slows down economic growth. Illness in the family is one of the major causes of reduction of incomes and asset of poor Kenyans. This leads to many consequences including high school dropout rates, broken families and poor health. Figure 2.2 illustrates various dimensions of the impact of disease burden.

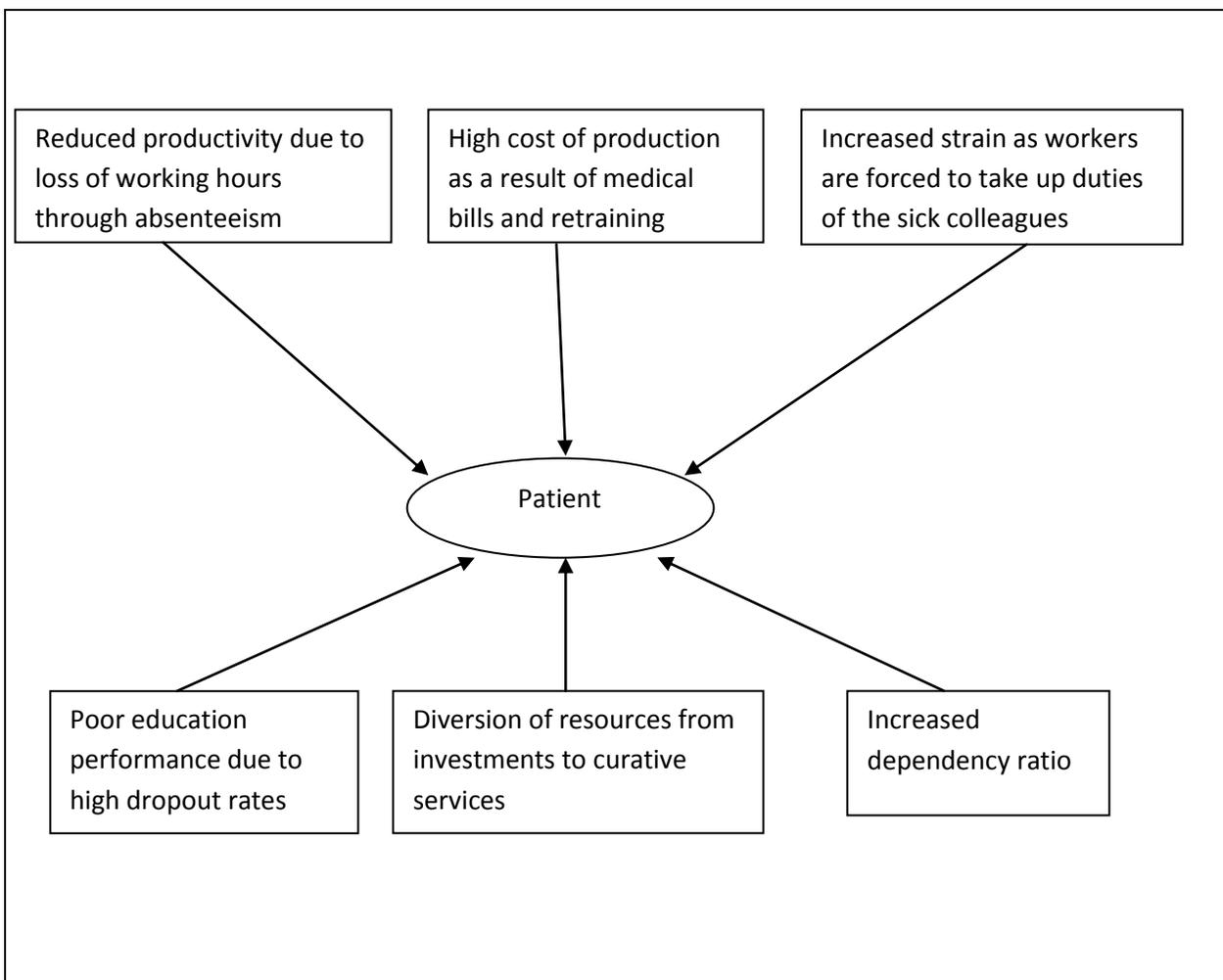


Figure 1. The burden of ill health on the nation

Source: Ministry of Education. Team Analysis (2005)

It is now being realized in progressive countries that to make up for the deficiencies of malnutrition is also the responsibility of the school. School feeding programmes should be incorporated in schools to cater for mid-day meals.

2.2.3 Health Education and Counseling in schools

With current socio-technological changes and educational demands, counseling is becoming a major area of concern for in-school youths. The larger number of students in schools, limited of trained counselors, heavy workload, socio-economic and technological changes all put pressure on teachers, parents and society. No wonder, there is frequent demand for counseling to help address some of these problems.

Whereas guidance and counseling (G/C) in secondary schools should help the students plan and prepare for their work roles after high school, with personal growth and achievement, plan and prepare for secondary schooling, and with their academic achievement in high school. Most Kenyans need more than these four major areas. They require direction, understanding, appreciation and modeling for them to get focused in their work Nichu (2005) guidance and counseling; Handbook for schools: Kur career ventures. Nairobi.

According to S.K. Kochhar (1997), health counseling is a process of helping students and parents to gain insight into the nature and significance of conditions revealed by appraisal techniques. Guidance and counseling helps, the students to come out of their stuck issues. However, research shows that there is very little done on health counseling and this increases the prevalence rate of health problems among them being sexually transmitted diseases (STDs) and HIV/AIDs among

school children. The actual improvement in the health of children depends largely on counseling and proper follow ups than on any other school activities, Kochhar (1997)

According to Arundo, (2008), counseling seeks to address and resolve problems, help one in decision making, while assisting one to cope with crisis. Counseling is also concerned with helping individuals to work through feelings and their inner conflicts so as to improve relationships with others. School counseling programs have been found to have significant influence on discipline problems.

Barker and Gerlier found that students who participated in a school counseling program had significantly less inappropriate behaviors and more positive attitudes towards school than those students who did not participate in the program. Where possible, parents should as well be counseled and guided so as to increase positive effects of exercise on the students.

2.3 School management support on the provision of health services in Secondary Schools

Primary health care is the essential care based on practical scientifically sound and socially acceptable methods and technology made universally acceptable to individuals and families in the community through their full participation and at a cost that the community can afford to maintain at every stage of their development in the spirit of self reliance and self determination (WHO- Alma Ata Conference 1978)

Kenya's high infant and under five mortality rates could be attributed to the HIV/AIDS pandemic, poverty and the general decline in economic well-being. Maternal deaths are strongly associated with sub-standard health care and delivery services, a poor work ethic among health care personnel and lack of necessary medical supplies at the time of labor, delivery and immediately after birth. There is therefore an urgent need to address these issues.

In 2006, 51 percent (51%) of budget was dedicated to preventive and promotive health care. The country's number of health personnel to the population is still inadequate. For example there are only 14 physicians for every 100,000 people, which is too low. The number of health personnel should be increased and re-oriented towards provision of preventive health care, as the saying goes 'prevention is better than cure'.

2.4 The role of School environment in the provision of health services

The school environment plays an important role in health care provision to students. A healthy body gives a healthy mind. The school environment should provide an environment that promotes health enhancing behavior. Such an environment should offer adequate space for exercises. Research literature suggests that schools which provide well developed health promotion programmes are more effective in encouraging children to adopt health enhancing behaviors and reducing health compromising behaviors than schools which provide curriculum-based education alone Connell et, al—1985; Parcel et al—1987; Ellison et al. (1989)

It is therefore important to provide the right environment for students to exercise their bodies so as to enhance their physical health. The school environment should thus provide adequate physical facilities, playgrounds, water and sanitation.

2.4.1 Physical facilities and playgrounds

For any school to have a smooth programme of Physical Education, appropriate facilities should be provided. One of the sure requirements is playground.

According to Ellison et al. (1989), schools should provide adequate play space for the students. These authors explained further through the information provided in Table 2.2.

Table 2:2 Space requirements for playgrounds

200 students	-	3 to 4 acres
250- 300 students	-	4to 6 acres
350- 500 students	-	7 to 10 acres

They further suggested that the playground should be some meters away from the classrooms to avoid disturbances. It should be well leveled; half various play feeds, courts and pitches. In every play field, the border lines should be well drawn and in good shape. There should be rooms for storing equipment, uniforms and first aid kits. There should also be an office for the teacher in charge (P.E teacher). Sanitary facilities and a source of water supply should be made available

2.4.2 Importance of Physical Education

Physical Education is a planned, sequential curriculum and program of physical activity taught daily in every grade. Cognitive content and learning experiences should be provided in a variety of activity areas, such as basic movement skills, physical fitness, rhymes and dance, games, team, dual, and individual sports, tumbling and gymnastics, and aquatics. Quality physical education should promote lifetime activities and sports that students can enjoy and pursue throughout their lives.

There is a significant correlation between physical education and school health programme because health is not merely freedom from disease but fitness of body as well. Physical education helps to maintain a state of physical fitness, acquire physical skills and help in exploring different physical talents.

Physical education therefore contributes not only to physical fitness but also to physical efficiency, mental development and alertness development of certain qualities like team spirit leadership, moderation in victory and balance in defeat and perseverance in times of hardships

According to Jackson Sharman, the aim of physical education is to influence the experiences of persons to the extent that each individual within the limits of his capacity may be helped to adjust successfully to society, to increase and improve his wants and to develop the ability to satisfy his wants, without annoying others.

2.4.3 Water and sanitation

Kenya is a water-scarce country with renewable fresh water per capital at 647m^3 against the United Nations recommended minimum of $1,000\text{m}^3$. This compares unfavorably with the neighboring countries of Uganda and Tanzania, which have per capital levels of $2,940\text{m}^3$ and $2,696\text{m}^3$ respectively. Kenyans access to water and sanitation is relatively poor compared to countries such as Malaysia. Better conflict resolution under the political pillar also has a water dimension since many conflicts in rural Kenya tend to be resource-based with a bias towards shared water-resources.

Efficient water management should be put in place and this will not only contribute to sustainable long-term economic growth, but also to poverty reduction, health and security. An improved water source together with better sanitation (which includes disposal of effluents and excreta) is one of the most important contributors to better human health. It is estimated that 80 percent (80%) of all communicable disease are water-related and thus constitute a major portion of health care expenditure.

Schools should therefore be provided with clean water services and sanitation so as to ward off students from communicable diseases.

2.4.4 Theoretical perspectives

School health services are said to be one of the most efficient strategies that a Nation might use to prevent major health and social problems. Next to the family, schools are the major institutions, for providing the instruction and expenses that prepare young people for their roles as healthy, productive adults. Elementary, middle and secondary schools are therefore prime settings for public health programming.

In addition, health and success in school are inextricably intertwined. Good health facilities lead children's' growth, development and optimal learning while education contributes to children's knowledge about being healthy.

The socio cultural theory (Bruner and Haste 1987) suggests that it is impossible to separate physical, psycho-social and emotional well-being at school, and academic achievement, since health is closely related to achievement.

Powney et al (2000) found out that health was an important influence on school attainment throughout a child's life, from before birth to the end of schooling. Some schools have, in accord with this view, moved to a 'full service' arrangement whereby they act as the cording site for a range of health services for students and the wider community (Lugg and Boyd 1993). Though others are still lagging behind and especially those in the less developed areas.

According to The New Theory by Markham WA, Aveyard P. (2003), good human functioning is dependent on the realization of a number of identified essential human capacities and the

meeting of identified fundamental human needs. Two essential capacities, the capacity for practical reason and the capacity for affiliation with other humans; plan and organize the other essential capacities.

Realization of these two capacities should, it is argued, be the primary focus of promoting school health services. This theory can be uniquely used to predict which pupils will enjoy the best health at school and in adulthood. Additionally according to the new theory, schools do not need designated health education classes or teaching staff with specialist health education roles in order to enhance health service provision. It is concluded that the new theory may have a number of advantages over existing theories at both the policy and intervention levels.

The HBM suggests that your belief in a personal threat together with your belief in the effectiveness of the proposed behavior will predict the likelihood of that behavior. The HBM is far most commonly used in health and health promotions (Glanz, Rimer and Lewis (2002)

Mays, Haverson, Baker and Stevens (2004) found in a study of availability and perceived effectiveness of public health services, which on average, two thirds of the 20 public health activities were performed in the local jurisdictions surveyed, and the perceived effectiveness rating averaged 35% of the maximum possible. In multivariate models, availability of health activities varied significantly according to population size, socioeconomic measures, local health department spending, and presence of local boards of health. Explaining further, Mays et al (2004) asserts that the availability and perceived effectiveness of public health activities varied considerably across local communities. On average, two thirds of the 20 public health activities were performed in the local public health jurisdiction surveyed. Three quarters of the local health departments' directors reported that 10 or more of the 20 activities were performed. The activity

types most likely to be available in the jurisdictions included investigation of adverse health events (99% of jurisdictions), provision of laboratory services (96%) implementation of mandated public health programs and services (91%), and implementation of programs in response to priority health needs (82%)

In another study by Kimberly and Holly (1995), a review of the literature from 1985 to 1995 on school – based health services for children was conducted using a computerized data-base search. Of the 5,046 references initially identified, 228 were program evaluations. Three inclusion criteria were applied to those studies: Use of random assignment to the intervention; inclusion of a control group and use of standardized outcome measured. Only 16 studies met these criteria. Three types of intervention were found to have were found to have empirical support for their effectiveness, although some of the evidence was mixed: cognitive – behavioral therapy, social skills training, and teacher consultation. The studies are discussed with reference to the sample, targeted problem, implementation and types of outcomes assessed, using a comprehensive model of outcome domains called the SFCES model. Future studies of school-based health services should (a) investigate the effectiveness of these interventions with a range of children’s psychiatric disorders; (b) broaden the range of outcomes to include variables related to service placements and family perceptive: (c) examine the combined effectiveness of these empirically – validated interventions: and (d) evaluate the impact of these services where linked to home-based interventions.

Various studies were secured by using the following method. A computer search was conducted November 21, 2007 in the following databases: Google Scholar, Academic Search Premier, CINAHL, PRCINAHL, PSYCARTICLES, Psychology, and behavioral Sciences Collection, PSYCINFO, Topic search. The MOLES terms for effectiveness “random” or controlled clinical

trial* or control group* or evaluation stud* or study design or statistical* significant* or double-blind or placebo” were combined with the key words “school-based mental health” in the search to target well conducted experimental studies. This research strategy produced 58 abstracts which were reviewed for possible inclusion. Of these, 15 full articles were selected for further review. Two of these articles were multi-study reviews of school-based mental health, and the remaining 13 are individual studies.

While the literature indicates some inconsistency in the outcomes of school-based mental health (SBMH); positive outcomes were more commonly found in the research studies reviewed. Of the 13 individual studies reviewed, 11 reported positive results. Rones and Hoagwood (2000) stated in their research review that “it is now well documented that, insofar as children receive any mental health services, schools are the major provider” Studies found that of the 16% of children or adolescents who receive any mental health service, less than 25% received them through the clinical-based services, whereas 75% received them within school (Burns, Costello, Angold, Tweed, Stangl, Farmer & Erkanli,1955). School-based mental health also creates the opportunity for screening, early detection of problems, and early interventions. Since school is a natural setting for children, they are able to receive intensive mental health services with fewer stigmas, which increase the likelihood of significant and sustainable behavioral change (Magee, Kavale, Mathur, Rutherford & Forness, 1999)

Klingman & Hochdorf (1993) conducted research on 237 eighth grade students who were randomly assigned to treatment and control groups within classrooms. After 12 sessions of primary prevention program on skills coping with distress and self-harm, students in the treatment group displayed a lower risk of potential suicide, demonstrated more positive coping skills, and obtained significantly more knowledge of suicide facts and help resources than

students in the control group. Clarke, Hawkins, Murphy, Sheeber, Lewinsohn & Seelay (1955) screened 1,652 ninth and tenth grade students in three high schools for depressive symptoms. At risk adolescents (who did not meet criteria for an effective disorder, but were determined to be at risk) were randomly assigned to a cognitive behavioral intervention group or a usual care control group. The total incidence of univocal depressive disorder in the treatment group was reported to be only half of that of the control group. Cunningham, Martorelli, Tran, Young and Zacharias (1998) examined the effects of a student-mediated conflict resolution program on training fifth-grade students in three schools in peer mediation and conflict resolution. “Direct observations suggest that the student mediation program reduced physically aggressive playground behavior by 51% to 65%. The effects were sustained at 1year follow-up observations” (p.653)

Hostetler and Fisher (1997) evaluated Project C.A.R.E., a substance abuse prevention program for high-risk youth and their families. Project C.A.R.E included student groups, student field trips, in-home family meetings, parent group meetings, one-week residential summer camp, and family activities. The study intended to measure the “decrease (in) substance use, negative behaviors, intent to use substances, school suspensions and absences; and to increase alternative activities, family communication, academic grades, and consistency of family behavior control and rules” (p.397). The results were surprisingly negative. Rones & Hoagwood (2000) stated in their research review, “Program students reported significantly more negative behaviors and substance abuse than control students and significantly less participation in alternative activities. It was unclear why treatment was associated with negative child outcomes”

The studies reviewed the extent which intended to measure the effectiveness of school-based mental health have some limitations. First, there is a paucity of literature on school-based interventions for students with severe mental illness. Although preventions and early

interventions are very important factors for the population at large, interventions for the most vulnerable kids are critical, given the fact that schools are the primary place for screening and assessment of children who may not have access to mental health services in any other way.

Second, Attention Deficit Hyperactivity Disorder (ADHD) is one of the most common disorders among children and adolescents (Friedman, 1999). Nevertheless, there are surprisingly few studies on the effectiveness of ADHD prevention or intervention programs. In fact, the only research accessed in this review focusing on ADHD is Efficacy of a school-based Treatment Program for Middle School Youth with ADHD (Evans, Axelrod, & Langerg, 2004). This study only involved seven (7) participants, students with ADHD – a sample size considered to be too small to provide research validity.

Finally, the third limitation of the literature review is that the measurement of success can be debatable and is therefore problematic. Owens and Murphy (2004) stated in their report that “Teachers are one of the key implementers of behavioral interventions for children with inattentive and disruptive behavior problems. Unfortunately, teachers have many competing demands for their time and attention” (p.203). In addition to time constraints, teachers also often lack the motivation to implement and/or measure these programs, because they “are peripheral to their mission of academic success” (p. 203)

According (united states public health service, 1990, world Health organization etal, MC Ginnis 1992) school health promotion should be done in schools. The health choices and behavior patterns adopted during child hood are often maintained into and throughout adult hood. The health choices and behaviors children adopt therefore have implications not only for individual’s adult heath and personal quality of life but also for community health trends and associated costs.

Praeger and Liebenberg, (1992), found that children health behaviors are influenced by a complex integration of the behavioral patterns they witness and experience from a variety of people, in a variety of settings overtime as part of a comprehensive community response , schools have an important contribution to make in influencing the development of integrated school and community health promotion activities. This component includes elements such as school links with health agencies and professionals, involvement with local and community and parental involvement

The WASH Model (MC Bride et al 1996) focused on the potential areas for school health promotion activity in its formal and informal training and interactions with school community members. This focus helped to provide broad guidelines about the type and extent of activity that could be undertaken by schools interested in promoting health, while also being broad enough to provide.

2.5 Conceptual framework of the study

School health services are said to be one of the most efficient strategies that a Nation might use to prevent major health and social problems. Next to the family, schools are the major institutions, for providing the instruction and expenses that prepare young people for their roles as healthy, productive adults. Elementary, middle and secondary schools are therefore prime settings for public health programming.

This study conceptualizes that Health Services provision in secondary schools can be influenced by resources, support from the management and the environment. This is further conceptualized in Figure 1.

INDEPENDENT VARIABLES

MODERATING VARIABLES

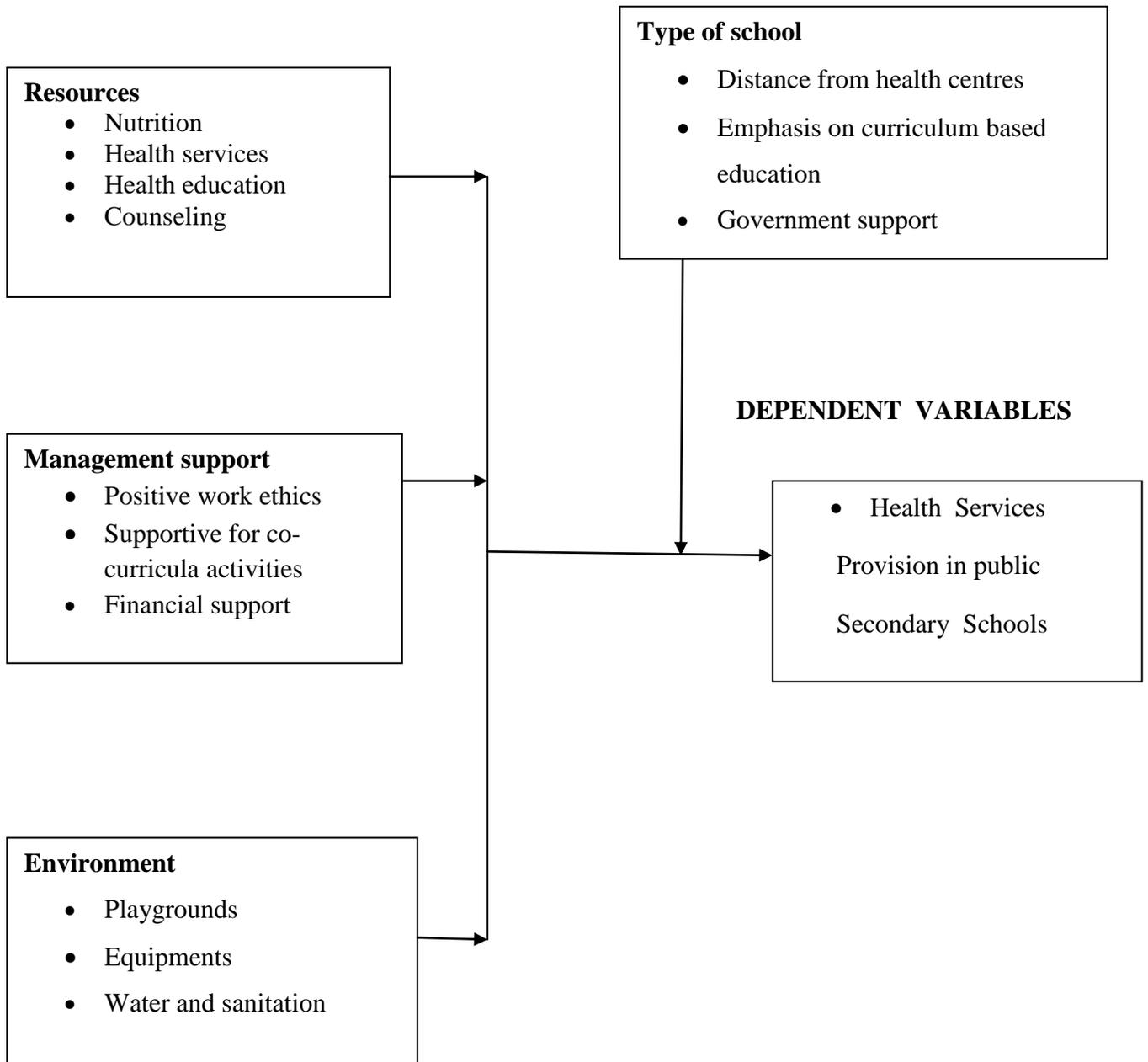


Figure 2: Conceptualization of factors influencing efficiency of health care services in public secondary schools

This study conceptualizes that provision of efficient health services in schools is influenced by the availability and use of resources such as good nutrition, provision of good and adequate health services, provision of health education in schools as well as counseling.

Management support is also thought to affect the provision of efficient health services as it is the management that instills the right work ethics for those providing the health services. The management also plays a key role in supporting co – curricular activities which form a very important part of health service provision to students. The management has to give financial support, ensure that the necessary facilities are provided and also encourage students to participate in co – curricular activities. Without such support, then the creative arts department would find it hard to implement its mandate.

The environment as well plays a key role in the provision of health services. The school environment should offer the necessary infrastructure for health education provision. Secondary schools should have adequate and well maintained playgrounds, play equipments as well as water and sanitation. These, it is conceptualized, promote efficient health service provision.

However, it is also possible that some moderating factors may affect the provision of efficient health service to students in Secondary Schools. Such moderating factors include lack of government support and emphasis on curriculum based education. Some schools are located in poor areas, especially when we bear in mind that Kitui County is a semi arid region. It may therefore imply that resources that could have hitherto been used to provide health services to students are diverted to more pressing issues. Therefore, without government support, it may not be easy to provide those services. Needless to say, the emphasis laid on curriculum based

education and examinations has made many schools and students to forget about co – curricula activities so as to concentrate on curricula activities to pass examinations.

It is upon this conceptual framework that this study is based.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discussed the research design, location of the study, the population of the study, sample and sampling procedure and data collection instruments, as well as data validation. Finally the procedures for data collection and analysis plan are outlined.

3.2 Research design

The purpose of this study was to examine the factors influencing efficiency of health facilities in public Secondary Schools in Kitui Central District, Kitui County. In order to achieve the objective of the study, descriptive survey design was used. According to Zina O'Leary, (2010), descriptive survey research design is appropriate because it helps explain a phenomenon in its actual state. The descriptive survey research design is the best method for this study since it will describe existing characteristics of public Secondary Schools in terms of provision of health services (Reinharz, 1992). Data was collected from the study population in order to determine the current status of health service provision in public Secondary Schools.

3.3 Population of the study

The study was conducted in selected Secondary Schools of Kitui Central District Kitui County, Kenya. According to Kenya Register of schools, in the DEOs office there are thirty two public Secondary Schools in Kitui Central District.

The study used Slovan's formula to obtain the sample size from Secondary Schools within Kitui Central District, Kitui County, Kenya.

The formula: $n = \frac{N}{1 + N(E)^2}$

Where: N= Population size

n = the required sample

E = the level of significance which is 0.05

Given that there are thirty two Secondary Schools, N = 32:

$$n = \frac{32}{1 + 32(0.05)^2} = \frac{32}{1 + 32(0.0025)} = \frac{32}{1 + 0.08} = \frac{32}{1.08} = 29.62$$

This is approximately 30 public Secondary schools, constituting 94% of the public Secondary Schools Kitui Central District, Kitui County. This sample is appropriate and representative as is explained by Kavulya (2007), that the larger the sample, the more representative it is. All the schools were distributed within three zones of Kitui Central District, Kitui County, namely: Miambani zone, Changwithya zone and Kalundu zone

3.4 Sampling procedure

To ensure that the sample is representative, 94% (percent) of the schools in each zone was sampled for data collection. The final study sample is arrived at as shown in Table 3.1

Table 3.1: Study sample for each zone

Zone	No. of Public Secondary Schools	Computation	Sample size
Changwithya	11	$94/100 \times 11 = 10.34$	10
Kalundu	13	$94/100 \times 13 = 12.22$	12
Miambani	08	$94/100 \times 8 = 7.52$	8
Total	32		30

Simple random sampling was used to select the final study sample. Simple random sampling is preferred because it provides an equal chance for every subject of study to be selected. The table of random numbers was used to get the schools that was used for data collection (Meredith 1996).

3.5 Research instruments

Data was collected using questionnaires, interview guide and observation schedule.

3.5.1 Questionnaire

Questionnaire are used because they can collect a lot of information within a very short time (Kothari 2014)

This study used a structured questionnaire as the principal tool to facilitate the process of collecting data from respondents; this was because the cost and nature of the topic entailed both

quantitative and qualitative data (Kocchari 2005). The questionnaires will have both closed ended and open ended questions. The closed ended questions provide data that is easy to compute and analyze while the open ended question provides an inner depth response of the respondent thus adding quality to the data collected (Mugenda and Mugenda 2003). A questionnaire was used to collect data from teachers.

3.5.2 Interview guide

An interview guide was used to collect data from the School Principals. This is because the heads of the institutions are busy people and may not find adequate time to respond to a questionnaire. Interviews also allow for clarifications and therefore provide a lot and quality data (Majumdar, (2005).

An observation schedule was used to gather data on school health facilities such as water sources, playgrounds, bathrooms, kitchens and stores, school clinic and toilets was done by the researcher.

3.6 Validity of the instrument

The validity of the instrument represents the degree to which a test measures and what it is supposed to measure (Wiersma, 1986). The study will carry out a pilot study on 10 % of the study sample, in agreement with Mugenda and Mugenda, (2003). Who noted that a pilot study on between 1% and 10% is appropriate Mugenda and Mugenda (2003). Thus, three (3) schools (10%) of the study sample were used for piloting purposes. The school that was utilized for piloting will not be included in the study sample.

3.7 Reliability

The study used the test retest method to ensure reliability. A questionnaire was administered to a few identical subjects (e.g. teachers and an interview guide for Principals). After the instruments are filled, they were scored manually, after a period of two or three weeks, the same instruments were administered again. The scores will then be compared to ascertain the reliability of the research instruments (Kothari 2004).

3.8 Data gathering procedure

After approval of the research proposal by the university supervisor, data is collected using questionnaire or interview guide either from probability or non probability; randomized or non-randomized selected sample from target population. The researcher obtained permission from the District Education Officer, Kitui Central District (DEO) by paying a courtesy call, so as to collect data in his/her area of jurisdiction.

The questionnaires were self administered. The respondents was given ample time of between one and two weeks to respond to the questions after which the filled questionnaires was collected and assembled for data coding and analysis.

The Interview schedules were conducted by the researcher on the spot. The researcher will book an appointment with the heads of the secondary schools so as to interview them.

The observation schedule was filled by the researcher on the day of administering the questionnaires.

3.9 Ethical considerations

The permission of the respondents was sought before administration of the questionnaires to the selected respondents.

Participants were given the assurance that their identity would remain anonymous in order to uphold their privacy. In this case therefore the respondents were not required to write down their identities in the questionnaires. The study embraced humanity and upheld traditional values.

3.10 Data analysis

The data was analyzed using statistical strategies such as measures of central tendency measures of variability, measures of relationships and measures of relative positions.

The data was tabulated, coded and processed using Statistical Package for Social Sciences (SPSS). Calculations was done on the quantitative information and percentages presented in tables using tally frequencies. The data was then analyzed to determine the level of health service delivery in selected secondary in Kitui Central District, Kitui County, Kenya.

The findings from the data analysis were used to draw conclusion on different aims and themes of the study which included school health counseling, provision of primary health care, school health care services, nutritional needs of children, and water and sanitation in schools etc. A general conclusion on the state of school health service provision in Kitui Central District Secondary Schools will thus drawn basing on the overall findings of the data analysis.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter focuses on the questionnaire return rate, demographic information of the respondents, data presentation, interpretation and discussion of findings. The presentation was done based on the research objectives.

4.2 Questionnaire return rate

This refers to the proportion the sample that participated in the survey as intended in all the research procedures. All the 30 questionnaires administered were returned as the researcher delivered the questionnaires personally and waited for the respondents to fill them after which he collected them thus ensuring 100% return rate.

4.3 Demographic information of the respondents

This section dealt with the demographic information of the respondents who were the school principals. This information helped to establish the relationship between personal characteristics of the Principals on the efficiency of health facilities in public Secondary Schools in Kitui Central District, Kitui County

4.3.1 Gender of the respondents

The respondents were asked to indicate their gender which was aimed at establishing if the study was gender sensitive and to establish the influence of gender on the efficiency of health facilities

in public Secondary Schools in Kitui Central District. The responses are as indicated in Table 4.1. Gender of the Respondents.

Table 4.1 Gender of the Respondents

Gender	Frequency	%
Female	7	25.0
Male	23	75.0
Total	30	100

Data on Table 4.1 indicate that majority of the Principals are males at 75 % against 25.0% females. These shows that the study was gender balanced as there was no single gender that dominated the study and school health facilities had impact on both genders.

Table 4.2: Age distribution of principals

Age in years	Frequency	Percentage (%)
30 – 34	0	0.0
35 – 39	0	0.0
40 – 45	18	60.0
Above 45	12	40.0
Total	30	100

Table 4.2 revealed that majority of the school principals (60%) were 40 – 45 years of age while those above 45 years of age were 40 percent.

4.3.2 Academic qualification for the respondents

The researcher sought to investigate the academic qualification for principals and departmental heads.

Table 4.3: Principals academic qualification

Category	Frequency	Percentage (%)
PhD	0	0.0
M.Ed	10	33.0
B.Ed	19	63.0
DIP. Education	1	4.0
Total	30	100

Table 4.3 revealed that majority of the principals had a bachelor of education as their highest academic qualification. The second group was those with masters implying that the principals were interested in pursuing further education and this is an indication of a great desire for academic advancement. This is likely to influence the provision of health facilities. It was however revealed that some of the principals had a diploma in education. This implies a need to sensitize the head teachers on the need for higher education.

4.4 School Resources and provision of health services

The study sought to establish the influence of resources on the health services provided in Secondary Schools in Kitui Central District, Kitui County.

The respondents gave their most appropriate response to the statements given, on a five point scale regarding the influence of resources on the efficiency of health services as follows: **Strongly Agree = 5, Agree =4, Not Sure =3, Disagree =2, Strongly Disagree =1.**

Table 4.4: School Resources and provision of health services

S/ No	Statement	5	4	3	2	1	Total
1	Students are not provided with food	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)	30(100%)
2	It is because of the food given to them that they are healthy	3(10%)	18(60%)	3(10%)	6(20%)	0(0%)	30(100%)
3	Our school organizes for health lessons for our students	9(30%)	6(20%)	9(30%)	6(20%)	0(0%)	30(100%)
4	The diet given to them is not well balanced	3(10%)	3(10%)	0(0%)	9(30%)	15(50%)	30(100%)
5	Students of this school are emaciated and weak	0(0%)	0(0%)	0(0%)	9(30%)	21(70%)	30(100%)
6	There is a guidance and counseling unit in our school	24(80%)	6(20%)	0(0%)	0(0%)	0(0%)	30(100%)
7	Students in this school attend classes daily because they are provided with a good diet	12(40%)	3(10%)	9(30%)	6(20%)	0(0%)	30(100%)
8	The guidance and counseling master in our school rarely guides and counsels our students	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)	30(100%)
9	Health education is very important for the physical and psychological wellbeing of the students in our school	30(100%)	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)
10	Health education bequeaths the students with lifelong skills	30(100%)	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)
11	Our school has a dispensary run by a qualified nurse	3(10%)	3(10%)	0(0%)	9(30%)	15(50%)	30(100%)
12	Students in our school trek long distances in search of treatment whenever they fall ill	3(10%)	1(3%)	0(0%)	6(20%)	20(77%)	30(100%)
14	Our school has a standby vehicle to take sick students to hospital	1(3%)	3(10%)	0(0%)	0(0%)	26(87%)	30(100%)
15	When one of our students fall ill, we send them home since we don't have the necessary facilities	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)	30(100%)
16	Our school infirmary is well stocked with the drugs to treat our sick students	0(0%)	3(10%)	6(20%)	9(30%)	12(40%)	30(100%)
	Mean total	7(23%)	3(10%)	2(6%)	5(18%)	13(43%)	30(100%)

Table 4.4 shows that majority (100%) of the respondents strongly disagreed with the statement that students are not provided with food and that when one of our students fall ill, we send them home since we don't have the necessary facilities. services. Also 100% those strongly agreed that who strongly disagreed health education is very important for the physical and psychological wellbeing of the students in their schools. The researcher also tested the hypothesis below concerning regarding the influence of resources on the efficiency of health services using both correlation coefficient and ANOVA.

H0: Provision of resources has no significant influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County

H1: Provision of resources does influence the provision of health services in Secondary Schools in Kitui Central District, Kitui County

Table 4.5 Correlations of School Resources and provision of health services

		School resources	Health services
School resources	Pearson Correlation	1	.715
	Sig. (2-tailed)		.115
	N	30	30
Health services	Pearson Correlation	.715	1
	Sig. (2-tailed)	.115	
	N	30	30

Table 4.5 shows that, there is a positive strong relationship $r(30) = 0.715$, between provision of resources and the health services provided in Secondary Schools in Kitui Central District, Kitui County. Also the provision of resources has a significant ($p > 0.05$) influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County.

We therefore do not reject the null hypothesis. The same results were observed in the ANOVA analysis (Table 4.6).

Table 4.6: ANOVA for School Resources and provision of health services

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	74.000	29	24.667	12.333	.206
Within Groups	2.000	1	2.000		
Total	76.000	30			

Table 4.6, indicated that $F(1,29) = 12.333$, ($p > 0.05$) and therefore claim in Table 4.5 is confirmed that the provision of resources has a significant ($p > 0.05$) influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County is confirmed, so I reject the null hypothesis.

4.5 School management support and on the provision of health services

The researcher also sought to determine the influence of support from school management on the provision of health services in Secondary Schools in Kitui Central District, Kitui County. The respondents gave their most appropriate response to the statements given, on a five point scale regarding the influence of resources on the efficiency of health services as follows: **Strongly Agree = 5, Agree =4, Not Sure =3, Disagree =2, Strongly Disagree =1.**

Table 4.7: School management support and on the provision of health services

	Statement	5	4	3	2	1	Total
1	The Principal of our school always says there is no money to buy games equipment	3(10%)	3(10%)	2(7%)	9(30%)	13(43%)	30(100%)
2	Our students participate in all co-curricula activities up to provincial level	4(14%)	3(10%)	0(0%)	3(10%)	10(33%)	30(100%)
3	Our students are not keen on games and athletics because they have been discouraged and encouraged to work hard in their studies	6(20%)	3(10%)	3(10%)	8(27%)	10(33%)	30(100%)
4	The school nurse is very rude to students who report to her sick for his/her assistance	0(0%)	0(0%)	0(0%)	12(40%)	18(60%)	30(100%)
5	The school has a male and female nurse	0(0%)	0(0%)	0(0%)	0(0%)	30(100%)	30(100%)
6	The principal encourages the students to participate in co-curricular activities	15(50%)	5(16%)	0(0%)	4(13%)	6(20%)	30(100%)
7	The principal has instilled a positive work ethic on all the people working in the school	8(27%)	6(20%)	4(13%)	5(16%)	7(23%)	30(100%)
	Mean total	6(20%)	3(10%)	2(6%)	5(17%)	14(47%)	30(100%)

Table 4.7 indicated that, 100% of respondents strongly disagreed with the statement that the school has a male and female nurse. This indicates that most of the schools management had not provided enough nurses for the schools. Also 60% of the respondents strongly disagreed that the school nurse is very rude to students who report to her sick for his/her assistance. It was however noted that the principal encourages the students to participate in co-curricular activities (50%)

The researcher tested the hypothesis using both the Spearman’s correlation coefficient and ANOVA.

H0: Support from school management has no significant influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County

H1: Support from school management has influence on the provision of health services in Secondary Schools in Kitui Central District, Kitui County

Table 4.8 Correlations on School management support and provision of health services

		School management	Health services
School management	Pearson Correlation	1	.695
	Sig. (2-tailed)		.175
	N	30	30
Health services	Pearson Correlation	.695	1
	Sig. (2-tailed)	.175	
	N	30	30

Table 4.8 shows that, there is a strong positive relationship $r(30) = 0.695$, between school management support and on the provision of health.

Table 4.9: ANOVA School management support and provision of health services

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	88.000	29	29.333	14.667	.189
Within Groups	2.000	1	2.000		
Total	90.000	30			

Table 4.9 shows that $F(1,29) = 14.667$, ($p > 0.05$), implying that there is a significant influence between school management support and provision of health services in secondary schools in Kitui Central District, Kitui County. We fail to reject the null hypothesis that support from school management has no significant influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County.

4.6 Environment and provision of health services in Secondary school

Lastly the study sought to examine the role of the environment in the provision of health services in Secondary Schools in Kitui Central District, Kitui County. The respondents were respondents were required to indicate the level of availability of health services in the school (Ranging from 1= very Inadequate 2=inadequate 3= adequate 4 = very adequate). The results were presented in Table 4.10 Environment and provision of health services in Secondary School

Table 4.10: Environment and provision of health services in Secondary School

S/No	Statement	4	3	2	1	Total
1	School clinic	3 (10%)	9(30%)	3(10%)	15(50%)	30(100%)
2	Physical education department	15(50%)	6(20%)	6(20%)	3(10%)	30(100%)
3	Nutrition department	10(33%)	10(33%)	3(10%)	7(23%)	30(100%)
4	Water	12(40%)	11(37%)	0(0%)	7(23%)	30(100%)
5	Sanitation	6(20%)	9(30%)	9(30%)	6(20%)	30(100%)
6	Nurses/clinical officers	3(10%)	9(30%)	3(10%)	15(50%)	30(100%)
7	electrical lighting	12(40%)	12(40%)	0(0%)	6(20%)	30(100%)
8	Toilets	16(53%)	10(33%)	0(0%)	4(14%)	30(100%)
9	Play grounds	15(50%)	5(17%)	3(10%)	7(23%)	30(100%)
10	swimming pools	0(0%)	0(0%)	5(17%)	25(83%)	30(100%)
	Mean total	11(38%)	8(26%)	3(10%)	8(26%)	30(100%)

Table 4.10 indicated that, 53% of the schools had adequate toilets though 50% of the schools did not have adequate school clinics and nurses/clinical officers. This is because they are easy to build than to employ a nurse/clinical officer. Further the researcher tested the hypothesis below.

H₀: The environment plays no significant role in the provision of health services in Secondary Schools Kitui Central District, Kitui County

H₁: The environment does play a role in the provision of health services in Secondary Schools Kitui Central District, Kitui County.

The results were presented in Table 4.11 and Table 4.12.

Table 4.11: Correlation of environment and provision of health services

		Environment	Health services
Environment	Pearson Correlation	1	.196
	Sig. (2-tailed)		.752
	N	30	30
Health services	Pearson Correlation	.196	1
	Sig. (2-tailed)	.752	
	N	30	30

Table 4.11 shows that there is a strong positive relationship $r(30) = 0.752$ between environment and provision of health services. Implying that, the better the environment the better the health services and vice versa.

Table 4.12: Environment and provision of health services in Secondary school ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	49.200	29	16.400	12.3	0.111
Within Groups	.000	1	.111		
Total	49.200	30			

The results on Table 4.12 indicates that shows that $F(1,29) = 12.3, p > 0.05$. This means that the influence between environment and provision of health services is significant. We therefore do not reject the null hypothesis and conclude that the environment plays a significant role in the provision of health services in Secondary Schools Kitui Central District, Kitui County.

This agrees with Connell et, al (1985) who argued that the school environment plays an important role in health care provision to students. This is because a healthy body gives a healthy mind. The school environment should provide an environment that promotes health enhancing behavior. Such an environment should offer adequate space for exercises. Research literature suggests that schools which provide well developed health promotion programmes are more effective in encouraging children to adopt health enhancing behaviors and reducing health compromising behaviors than schools which provide curriculum-based education alone.

CHAPTER FIVE

SUMMARY OF FINDINGS, DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary of the findings, conclusion from the findings, recommendations and suggestions for further research.

5.2 Summary of the findings

This study investigated the factors influencing efficiency of health facilities in public Secondary Schools in Kitui Central District, Kitui County. This was in the light of the fact that Secondary schools in Kitui Central District of Kitui County have experienced student complaints, upheavals and in some cases, strikes. Cases of deaths of students have also been reported in some secondary schools amid student complaints of unavailable or inefficient health services.

Data were collected using the questionnaires as the main instruments. The questionnaires were subjected to 30 teachers. Interview schedules were also used for the school principals in Kitui central District. The data collected were analyzed using frequency Tables and Pearson's correlation coefficient Tables and ANOVA were used to test the stated hypothesis following the research objectives.

The study first sought to establish the influence of resources on the health services provided in Secondary Schools in Kitui Central District, Kitui County. The study revealed that majority (100%) of the respondents strongly disagreed with the statement that students are not provided with food and that when one of our students fall ill, we send them home since we don't have the

necessary health care facilities and services. Also 100% are those strongly agreed that health education is very important for the physical and psychological wellbeing of the students in their schools. It was also established that there is a positive strong relationship $r(30) = 0.715$, between provision of resources and the health services provided in Secondary Schools in Kitui Central District, Kitui County. Also the provision of resources has a significant ($p < 0.05$) influence on the health services provided in Secondary Schools in Kitui Central District, Kitui County.

The study also sought to determine the influence of support from school management on the provision of health services in Secondary Schools in Kitui Central District, Kitui County. The study established that 100% of respondents strongly disagreed with the statement that the school has a nurse. This indicates that most of the schools management had not provided enough nurses for the schools. Also 60% of the respondents strongly disagreed that the school nurse is very rude to students who report for assistance. It was however observed that the principal encourages students to participate in co-curricular activities (50%). It was also established that $F(1,29) = 14.667$, ($p > 0.05$), implying that there is a significant relationship between school management support and provision of health services in secondary schools in Kitui Central District, Kitui County.

Lastly the study sought to examine the role of the environment in the provision of health services in Secondary Schools in Kitui Central District, Kitui County. It was established that, 53% of the schools had adequate toilets though 50% of the schools did not have adequate school clinics and nurses/clinical officers. It was established that $F(1, 29) = 12.3$, $p < 0.05$. This means that the relationship between environment and provision of health services is significant. We therefore do

not reject the hypothesis and conclude that the environment plays a significant role in the provision of health services in Secondary Schools Kitui Central District, Kitui County.

5.3 Discussions

The results in table 4.6 agree with Snatrock (2001), who argued that the provision of efficient health services depends entirely on many resources. These resources should be available for any meaningful health service to be provided. Such resources include among others; a good nutrition, health services, health education and health living. This is because According feeding and eating habits are essential aspects of development during the early developmental stages of a child. What a child feeds on determines the physical, and mental or cognitive development of that child. Recognizing that nutrition is a very important aspect and thus school lunch programs should be provided to school children and the lunch should be of a balanced diet.

The results in table 4.9 agrees with 2006 Kenya budget report that, 51 percent of budget was dedicated to preventive and promotive health care. It further indicated that the country's number of health personnel to the population is still inadequate. For example there are only 14 physicians for every 100,000 people, which is too low. The number of health personnel should be increased and re-oriented towards provision of preventive health care, as the saying guess 'prevention is better than cure'. The same is observed in many schools where the management was only able to employ one nurse.

5.4 Conclusions from the study

Following the research findings from this study, the research wished to make the following conclusions.

- i. Resources influences provision of health services. This is because resources are needed in acquiring health facilities hence the more the allocation on the resources the better the facilities.
- ii. School management support influences provision of the health services. This is because the school management decides on what should be acquired and therefore the more the support the better the provision of health services.
- iii. Environment influences provision of health services. This is because provision of health services requires a conducive environment with the required facilities. The better the environment the better the health care services.

5.5 Recommendations from the study

Following the findings for this study the researcher wishes to make the following recommendations.

- i. The Government should construct health centers near the schools so that students to not have to go far from school whenever they fall ill.
- ii. The school management should consider employing more health workers to in their school clinics for treating the students. At the same time the schools should purchase the necessary materials for keeping fit in the schools.
- iii. The school should provide adequate facilities in the school to support the health improvement of the students.

5.6 Suggestions for further research

This study investigated the factors influencing efficiency of health facilities in public Secondary Schools in Kitui Central District, Kitui County. Further research can be done on the following:-

- i. The influence of health facilities on the performance of students in KCSE.
- ii. The influence of students' health on performance in KCSE.
- iii. The influence school infrastructure on performance of students in KCSE.

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APPENDIX A: INTRODUCTION LETTER

MINISTRY OF EDUCATION, SCIENCE & TECHNOLOGY
State Department for Education

Telegrams "EDUCATION" Kitui
Telephone: Kitui 22759
Fax :04444-22103
e-mail : kituicentraldeo@yahoo.com
When replying please quote;



DISTRICT EDUCATION OFFICE
P.O BOX 35-90200
KITUI

Ref. No.KTI/G/192/VOL.202

Date: 09/06/2014

TO
ALL PRINCIPALS OF SECONDARY SCHOOLS
KITUI CENTRAL

RE: AUTHORITY TO COLLECT DATA ON FACTORS INFLUENCING EFFICIENCY OF
HEALTH SERVICES.

✓ MR. JOSIAH MUNYASYA ADM/L/50/78032/2012.

The above named is a Post Graduate Student at the University of Nairobi taking Masters Degree in Project Planning and Management.

He is hereby authorized to collect data in our secondary schools related to his field of study.

Please do accord him the necessary assistance.

A handwritten signature in black ink, appearing to read 'P. Maundu', written over a circular stamp.
PETER V. MAUNDU

FOR: DISTRICT EDUCATION OFFICE
KITUI CENTRAL

For: DISTRICT EDUCATION OFFICER
P. O. Box 35
KITUI
Date: 9/6/2014

cc.

County Director of Education
Kitui County.

APPENDIX B: RESPONDENT'S QUESTIONNAIRE

Dear Respondent,

I am a post graduate student at The University of Nairobi, taking a Masters degree in Project Planning and Management. This study is about the factors influencing efficiency of health facilities in public Secondary Schools in Kitui Central District, Kitui County. The findings of this study will assist the management of Secondary Schools and Education policy makers to help make better the provision of health services in Secondary Schools.

The information you will give was treated with absolute confidentiality. Do not indicate your name. Please respond to all items in the questionnaire as honestly and correctly as possible.

Section A: Demographic information

Please indicate by use of a tick (✓) as appropriate.

1. Indicate Gender

Male Female

2. Indicate Age

Below 35 years 35-40 years 41-45 years 46-50 years

Above 50 years

3. Indicate marital status

Single Married Divorced/separated Widow/Widower

4. Indicate Highest academic qualification

CPE/KCPE KCSE/KCE/KACE Certificate Diploma

Graduate Post Graduate

6. Indicate Number of years in your current position

Less than 1 year 1 – 3 years 4 – 6 years 7– 9 years

10 ears and above

7. What type of school do you teach? (tick where appropriate)

Mixed day Mixed boarding Girls day

Boys day Girls boarding Boys boarding

8. Indicate Years of service in the school

Below 1 year 1-5 years 6 – 10 years 11 – 15 years

16–20 years over 20 years

SECTION B: Availability and influence of resources on provision of health services at the school

Please give your most appropriate response to each of the following statements, on a five point scale regarding the influence of resources on the efficiency of health services. Please inform me if you: Strongly Agree-S.A=5. Agree–A=4, Not Sure–N.S=3, Disagree–D=2, Strongly Disagree–S.D=1. 0By ticking [] the appropriate response

S/No	Statement	5	4	3	2	1
1	Students are not provided with food					
2	It is because of the food given to them that they are healthy					

3	Our school organizes for health lessons for our students					
4	The diet given to them is not well balanced					
5	Students of this school are emaciated and weak					
6	There is a guidance and counseling unit in our school					
7	Students in this school attend classes daily because they are provided with a good diet					
8	The guidance and counseling master in our school rarely guides and counsels our students					
9	Health education is very important for the physical and psychological wellbeing of the students in our school					
10	Health education bequeaths the students with lifelong skills					
11	Students who go through our school are disciplined					
12	Our students are well rounded as they are taught both curricula and co-curricular activities					
13	Our school has a dispensary run by a qualified nurse					
14	Students in our school trek long distances in search of treatment whenever they fall ill					
15	Our school has a standby vehicle to take sick students to hospital					
16	When one of our students fall ill, we send them home since we don't have the necessary facilities					
17	Our school infirmary is well stocked with the drugs to treat our sick students					

SECTION C: School Management support on the provision of health care services to secondary school students

Please give your most appropriate response to each of the following statements, on a five point scale regarding the influence of School Management support on the provision of health care services to secondary school students

Please inform me if you: Strongly Agree-S.A=5. Agree-A=4, Not Sure-N.S=3, Disagree-D=2, Strongly Disagree-S.D=1., by ticking [√] the appropriate response

S/No	Statement	5	4	3	2	1
1	The Principal of our school always says there is no money to buy games equipment					
2	Our students participate in all co-curricular activities up to provincial level					
3	Our students are not keen on games and athletics because they have been discouraged and encouraged to work hard in their studies					
4	The school nurse is very rude to students who report to her sick for his/her assistance					
5	The school has a male and female nurse					
6	The principal encourages the students to participate in co-curricular activities					
7	The principal has instilled a positive work ethic on all the people working in the school					

8	The school sponsors games teachers to attend games and athletic clinics					
9	Our school is always broke and does not provide our students with a meal at lunch time					
10	Our students come to school promptly because it is the only place they are assured of a meal					

Thank you for your cooperation

APPENDIX C: Observation schedule

SECTION D: The influence of the School Environment on the provision of health care services

Please give your most appropriate response to each of the following statements, on a five point scale regarding the influence of the school environment on the efficiency of health services.

Please indicate the level of availability of health services in the school (Ranging from 1= very Inadequate 2=inadequate 3= adequate 4 = very adequate).

S/No	Statement	4	3	2	1
1	School clinic				
2	Physical education department				
3	Nutrition department				
4	Water				
5	Sanitation				
6	Nurses/clinical officers				
7	Beds				
8	Bed sheets				
9	electrical lighting				
10	Toilets				
11	Play grounds				
12	ground tennis fields				
13	gym's				

15	football fields				
16	netball fields				
17	volleyball fields				
18	hand ball field				
19	hockey fields				
20	basket ball fields				
23	swimming pools				

Thank you for your cooperation

SECTION E: Efficiency of school health services in secondary schools

Please insert numbers appropriately to indicate the level of effectiveness of health services in your school. Your respective answer should range from Very efficient = 1 Efficient = 2 Inefficient = 3 Very inefficient = 4

1. Water source is always running
2. Admission of students when sick
3. Attendance to students complains
4. Prompt response when attention of students is needed.
5. Enough numbers of nurses at hand
6. Referral services available (e.g. laboratories, injections, medicine etc.)
7. Provision of medical services to students with special needs
8. Offering guidance and counseling
9. Provision of primary health care

10. Offering of physical health promotion activities to students

SECTION F: measurement of the dependent variable

Please give your most appropriate response to each of the following statements, on a five point scale regarding the influence of resources on the efficiency of health services. Please inform me if you: Strongly Agree-S.A=5. Agree-A=4, Not Sure-N.S=3, Disagree-D=2, Strongly Disagree-S.D=1. by ticking [√] the appropriate response

	5	4	3	2	1
our school has enough resources to run health services					
Our school has management support for health services					
There is conducive environment to support health service in our school					
There is a lot of emphasis on curriculum based education in our school at the expense of provision of health services					
There is physical health promotion services in the school					
The type of our school influences the provision of health services					

Thank you for your cooperation

APPENDIX D: Interview guide (For Principals)

I am a post graduate student at The University of Nairobi, taking a Masters degree in Project Planning and Management. This study is about the factors influencing efficiency of health facilities in public Secondary Schools in Kitui Central District, Kitui County. The findings of this study will assist the management of Secondary Schools and Education policy makers to help make better the provision of health services in Secondary Schools.

Please respond to all items as honestly and correctly as possible.

1. Number of years in your current position

Less than 1 year 1 – 3 years 4 – 6 years 7– 9 years

10 years and above

2. What type of school do you teach?

Mixed day Mixed boarding Girls day

Boys day Girls boarding Boys boarding

3. Years of service in the school

Below 1 year 1-5 years 6 – 10 years 11 – 15 years

16 – 20 years over 20 years

4. Does your school provide any meals to the students?

5. Who supports the feeding programme?

6. Is the feeding programme necessary to the students according to you?

7. Does your school have a dispensary?

8. How do you cater for your student's medical problems if there is no medication in school?
9. Do you have qualified personnel to run the guidance and counseling department?
10. Does your school participate at any level in co-curricular activities?
11. Does the school receive any support in terms of resources from donors or the government?
12. How much on average does your school spent on recreation for the students?
13. Does your school have adequate play ground for the students?
14. How is the student's performance in national exams?
15. How often do the students receive guidance and counseling from external speakers?

Thank you for your cooperation