

**DETERMINING THE PREVALENCE OF LATE CHILDHOOD
AND ADOLESCENT PSYCHOPATHOLOGY IN RURAL
PUBLIC SECONDARY AND PRIMARY SCHOOLS IN BUSIA
COUNTY- WESTERN KENYA**

**A DISSERTATION IN PART FULFILMENT FOR THE AWARD
OF THE DEGREE OF MASTER OF SCIENCE IN CLINICAL
PSYCHOLOGY OF THE
UNIVERSITY OF NAIROBI**

BY

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I, Maryanjeline M. A. Barasa, do hereby declare that this dissertation: **Determining the Prevalence of Late Childhood and Adolescent Psychopathology in Rural Public Secondary and Primary Schools in Busia County –Western Kenya** is the result of my own work and that it has not been submitted either wholly or in part to this or another university for the award of any degree or diploma. Research materials and contributions by others have been properly acknowledged.

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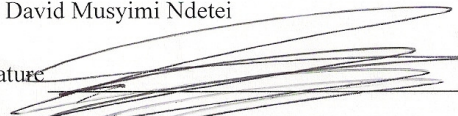
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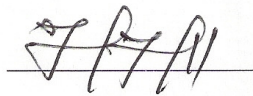
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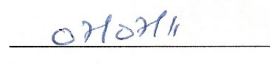
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DEDICATION

This work has been dedicated to my beloved husband Eng. Barasa, my children John, Henry, Moses and Melany for their love, patience, encouragement and understanding. I also dedicate it to my mother Melenia who always prayed and wished me well.

Thank you all.

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ABBREVIATIONS

1. ADHD Attention Deficit Hyperactive Disorder
2. WHO World Health Organization
3. PTSD Post-Traumatic Stress Disorder
4. LAMIC Low and Middle Income Countries
5. YSR Youth Self Report
6. AMHF African Mental Health Foundation
7. IQ Intelligence Quotient
8. ASEBA Achenbach System of Empirically Based Assessment
9. CAMH Child and Adolescent Mental Health
10. CAMD Child and Adolescent Mental Disorder
11. MDGs Millennium Development Goals
12. CD Conduct Disorder
13. ODD Oppositional Defiant Disorder
14. U.S.A United States of America
15. YSR Youth Self Report
16. SPSS Statistical Package for Social Sciences
17. ADM Assessment Data Manager
18. ESs Effect Sizes

OPERATIONAL DEFINATIONS

1. Puberty: A time during which sexual and physical characteristics mature
2. Precocious Puberty: Early puberty or puberty occurring at an unusually early age, which is when body changes happen earlier than normal.
3. Morbidity: An incidence of ill health (from the latin word morbidus- sick, unhealthy)
4. Efficacious intervention: Effective intervention, interventions that are successful in producing desired or intended results.
5. Imprecise: Not precise or exact, containing some error or uncertainty
6. Deleterious impact: An impact that is injurious or harmful, often in a subtle or unexpected way.
7. Taxonomy: A practice and science of classification. It has its roots from the Greek word, **taxis** (making arrangements) and **nomos** (law or science)
8. Iteration: The act of repeating a process with the aim of reaching the desired goal or result.
9. Pedagogical: Instructional strategies or style of instruction. It is from the word pedagogy that means the study of being a teacher or the process of teaching.

10. Plausible: Seemingly or apparently valid, credible or acceptable e.g. plausible excuse
11. Operationalisation: A process of defining fuzzy concepts to make the clearly distinguishable or measurable and to understand it in terms of empirical observations. In other words, specifying the extension of the concept by describing what is and what is not part of that concept.
12. Adolescence: A period of life that runs from puberty to adulthood (roughly between the ages of 12 to 20 years), characterized by marked physiological changes, development of sexual feelings, making of efforts towards the construction of identity and progression from concrete to abstract thought.
13. Psychopathology: It denotes behaviors or experiences indicative of mental illness even if they do not constitute a formal diagnosis or any behavior or experience which causes impairment, distress or disability, particularly if it is thought to arise from a functional break down in either the cognitive and neurocognitive systems in the brain.

ABSTRACT

Objectives:

Broad Objective

To determine the level of late childhood and adolescent psychopathology in rural public Secondary and Primary schools in Busia County- western Kenya.

Specific Objectives were;

1. To identify the pattern and prevalence of psychiatric syndromes in the study population.
2. To find the relationship between psychiatric syndromes and gender.
3. To find the relationship between psychiatric syndromes and age

Study Design: Cross-sectional; using stratified random sampling.

Setting: Two schools in Busia County; Nasewa mixed day secondary and Indoli mixed day primary schools.

Measurement Tool: A self administered questionnaire (ASEBA Youth Self Report 11-18 years)

Participants: 11-18 year old Pupils and students in rural public primary and secondary schools. 250 participated, only 220 questionnaires were used in the analysis, others were incomplete.

Method: Sampling a stratified random sampling from a list of all the schools in the county targeting one day public mixed secondary school and one day public mixed primary school. One stream from standard five to form four was selected and all assenting respondents participated.

Assessment procedure Assent forms distributed first, assent explanation and signing then the researcher read out loud the questions one by one in both English and Kiswahili.

Ethical procedure All approvals were gotten, procedures and objectives of the study discussed with the heads of the institutions, assessments was ANONYMOUS. Secondary students requested not to write their classes and it was granted even to primary school pupils.

Analysis/Presentation: The syndromes were classified using YSR Profile for boys and girls scale, data analysis was completed using SPSS statistical soft ware and presented in tables.

RESULTS:

Study outcome: The study established mean of (37) 16.2% students in clinical range and a mean of (40) 17.1% in subclinical range. Clinical and subclinical internalizing syndromes were significantly higher among girls than boys while externalizing was higher in boys than girls. The study found the prevalence of internalizing syndromes as the highest in this population and increasing with age. The internalizing syndrome with the highest clinical range was somatic complains (73)33.2%.

Discussion: (57)25.9% were in clinical range and (50)22.7% in subclinical on internalizing, while in externalizing 7.2% were in the clinical and 13% in the subclinical. This is supported by association of child and adolescent mental study who revealed that Anxious/depression syndrome showed the largest Effect size (ESs) and TRF (3% ESs for ages 6 – 15), and YRS (3% ESs for ages 11 – 16). Prevalence of internalizing syndromes exceeds externalizing problems by mean percentage 9.7% in subclinical range and 18.7% in clinical range. This result coincides with Association of Child and Adolescent Mental Study (2008), who stated that the ESs difference among societies on the internalizing scale exceeded those of externalizing syndrome.

Conclusion: From the findings the study concludes that there is a mental health problem in rural public secondary and primary schools in Busia County in Western Kenya. Girls had more clinical internalizing ASEBA problems indicating a mental health problem among girls in rural public secondary and primary schools. Although not the same as girls, prevalence of clinical and subclinical internalizing syndromes was also reported in boys hence concluding that as much attention is given to girls, boys should also be considered.

Recommendation:

1. A similar study to be replicated on a larger sample in other counties in Kenya so that similar results be found a policy for the whole country can be implemented.
2. The study recommended immediate mental health treatment services to the youth in rural schools.
3. Future studies on the topic should use culturally and locally standardized tools to compare results.

CHAPTER ONE

1.0 INTRODUCTION

1.1.0 BACKGROUND

1.1.1 Childhood, Adolescence and Psychopathology

Many researchers, (Garvey House, Capella University, 2007; Greham et al., 1999) have found that children with multiple problems have problems that cluster in at least three general groups: -

- a) Internalizing behaviors (anxious/depressed, withdrawn/depressed and somatic complains),
- b) Externalizing behaviors, (rule- breaking and aggressive behavior)
- c) Low incidence behaviors such as Schizophrenia, a rare disorder in children, although experts agree that the earlier the onset the more severe the disturbance (Newcomer, 1993).

Psychopathology therefore, as it was referred to in this study, is a description of aggregates of abnormal behavior, experiences, and cognitions that are observed and reported by individuals or proxies. This study adopted the definition that adolescence is a period of life that runs from puberty to adulthood (roughly between the ages of 12 to 20 years), characterized by marked physiological changes, development of sexual characteristics, making of efforts towards the construction of identity and progression from concrete to abstract thought. Adolescence is sometimes viewed as a transitional state during which youths begin to become independent from parents but still lack a clearly defined role in society. It is generally regarded as an emotionally intense and often stressful period (Britannica Concise Encyclopedia-Britannica.com). It is therefore a period of physical and psychological development from the onset of puberty to maturity or a transitional period of development between youth and maturity (Steinberg, 1996).

This transition involves biological, social and psychological changes. For a long time, puberty was associated with teenagers and the onset of adolescence. In recent years, however, the start of puberty has had somewhat of an increased pre-adolescence (Silberg et al 1999), particularly among females, as seen with early and precocious puberty. Adolescence has an occasional extension beyond the teenage years (typically males) and this thus makes it difficult to rigidly

define the time frame during which adolescence occurs.

The end of adolescence and the beginning of adulthood varies by country and by function and even within single nation-state or culture there can be different ages at which an individual is considered to be (chronologically and legally) mature enough to be entrusted by society with certain tasks (Silberg et al 1999).

It has been established that childhood and adolescence can ordinarily be turbulent periods. The adolescents in particular have uniquely characteristic challenges. Puberty, for example, is an extremely tough period when significant body changes take place, sexual desires develop and quest for independence strengthens. Peer influence begins to take effect and the adolescents start fighting to fit in with peers. Besides, most adolescents begin to grapple with issues of body weight, get tempted to experiment with drugs and the possibility of teen pregnancy becomes even more real. But getting along with parents is an issue that affects both children and adolescents, although it is usually more difficult during adolescence. (Borelli & Prinstein 2000).

It is during this period that signs of mental disorders begin to show (McGee et al., 1995, Escobedo et al 1997). It is also a time when teachers have reported problematic behaviors in children over time, especially in girls (Verhulst and Van der Ende, 1991a). Indeed, based on judgment of clinicians, the teachers report on severity of psychopathology during this period ranks higher than interview reports from parents and children themselves (Verhulst and Van der Ende, 1991b).

Studies have shown that unhealthy lifestyles and unspecific mental and somatic symptoms are usually the first indicators of problems in both psychological and social development among adolescents (Steptoe et al 1997; Koivusild et al 1998; Karvonen et al 1999). Adolescents suffering from mental problems like major depression, eating disorder and behavioral problems, more commonly have harmful lifestyles such as the consumption of intoxicants and smoking, physical inactivity or unbalanced diet (Fergusson et al 1997). Heavy drinking is associated with severe psychosocial dysfunctions, for instance psychosomatic symptoms, a negative social self-image, externalizing and school problems. The association is stronger among girls than boys (Laukkonen et al 2001).

While changes are to be biologically, cognitively, emotionally and socially expected during adolescence, certain inappropriate changes in personality, physical appearance, or abnormal sexual development may require psychological support. Such signals may assume many forms such as irregular weight changes, excessive dieting, sleep disturbance and change in social interests among others. Some of the challenges usually associated with these changes, and which may thus call for psychological support, include the development of psychiatric and psychological problems such as Attention Deficit Hyperactive Disorder (ADHD), Conduct Disorder (CD), Bipolar disorder, Eating disorder, Psychotic disorder, Oppositional Defiant Disorder (ODD) and emotional disorders. When these disorders begin to manifest themselves, the young people become candidates for specialized assessment tools, therapy and treatment to enable them grow into healthy future adults (Abad,J, Forns, M, &Gomez, J (2002).

A school is a society in miniature where pupils practice different skills for adulthood. Psychosocial maladjustment in schools, for example, to bully or be a victim of bullying, has a strong tendency to persist for years than in other contexts (Salmivalli.et al 1998). The meta-analysis of the association of peer victimization with psychosocial maladjustment show that victims are more anxious, depressive and lonely, and their self esteem is more negative compared with other pupils (Hawker and Boulton 2000). Both the bullies and the victim may have emotional and behavioral problems (Sourander.et all 2000) and both may exhibit suicidal ideation (Kaltiala-Heino.et al 1990). Developmental problems, lack of learning skills and poor results in school work may marginalize a child or a young person to the extent that she/he would have difficulty in progressing in life. Dropping out of studies has often been seen as related to educational or social exclusion or exclusion from the labour market (Caspi. et al 1998, Taskinen, 2001).

1.2 Problem Statement

It is known that adolescents face many mental and social problems irrespective of their social setting, but those from well off backgrounds, particularly in urban areas, may not be able to easily access remedies, the contrary applies to their counterparts from poor rural settings, as the guardians may not even recognize or appreciate the enormity of the disorders among adolescents. Research in adolescents' psychopathology has been limited mostly to developed countries where they have identified risks and protecting factors. Little has been done to assess adolescent psychopathology in developing countries such as those in sub Sahara Africa and their rural setting in particular. The future of a country depends on the mental health and strength of young people. However many children and adolescents have mental health problems that interfere with normal development and functioning (Scholfe, Janssens and De Bruyn 2006; margolin, Ronnlund and Karlsson 2006).

Patterns of psychopathology and their determinants are not known in this study area. This research therefore was set to assess and determine the prevalence of adolescents' psychopathology in rural public schools in Busia County- Kenya

1.3 Research Questions

This research attempted to answer the following questions:

1. What are the patterns of psychopathology syndromes in rural public schools in the study area?
2. Are the patterns of psychopathology syndromes in this population related to:
 - a) Gender factor?
 - b) Age factor?

1.4.1 Null hypothesis

The mean scores on internalizing and externalizing psychopathology syndromes in this rural Kenyan population are not higher than has been found in other rural populations.

1.4.2 Alternative hypothesis

The mean scores on internalizing and externalizing psychopathology syndromes in this rural Kenyan population are higher than has been found in other rural populations.

1.5 Justification

In U.S. one in ten children and adolescent suffer from mental illness severe enough to cause some level of impairment. However in any given year, it is estimated that less than one in five of these children receive needed treatment. (Favassa and Omon 1984; Kleinman 1988; West Meyer and Jaerd 2003). From the various researches carried out worldwide, psychological disorder are quite prevalent among adolescents in particular. It is also pointed out that childhood psychiatric problems that require treatment affect 7%-10% of young people, sometime emotional disorders (anxiety/depression) seriously impair learning and development. While behavioral disorders seriously disrupt social development, they can also cause long term mental problems (Karvonen.et al 1999).

Thus, in our Kenyan public school setting, educational system is already challenged by inadequate resources, crowded classrooms and inconsistent quality, it is plausible to hypothesize that learning and emotional problems are important risk factors for dropout and psychopathology.

To address this, a study to assess and determine representative psychopathology becomes imperative for a comprehensive understanding of the youth mental health scenario. It is also important to understand the factors affecting their mental well being.

1.6 Significance of the study

1. The research findings will form a basis for reference to other rural public schools in the County.
2. The school management of the schools will be made aware of the prevalence of psychopathology at their school and given information on available help for students that self identify.
3. The study will provide much needed information on the prevalence of youth psychopathology and related risk and protective factors specific to rural areas in Western Kenya.

1.7 Objectives

1.7.1 Broad Objective

This study set out to determine the level of late childhood and adolescent psychopathology in rural public Secondary and Primary schools in Busia County- Western Kenya.

1.7.2 Specific Objectives

1. To identify the prevalence and pattern of psychiatric syndromes in the study population.
2. To find the relationship between psychiatric syndromes and gender.
3. To find the relationship between psychiatric syndromes and age

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1. International perspectives

This study worked from the premise that Child and Adolescent Mental Health (CAMH) is the capacity to achieve and maintain optimal psychological function and well being (World Health Organization, 2005, p.7). In this context it is viewed as a resource essential to subjective well being and to the ability to perceive, comprehend and interpret surroundings, adapt or change the surrounding where necessary, to communicate and have successful social interactions (Lehtinen et al, 2005, p. 46). It is the opposite of Child and Adolescent Mental ill-health, which is about inability of the child to optimize competence.

Mental, behavioral and developmental disorders with childhood onset are a major public-health concern (WHO, 2005). Based on the National Morbidity Survey Replication study, about half of Americans will meet the criteria for a DSM-IV disorder at least once in their life, with first onset usually in childhood or adolescence (Kessler et al., 2005). Anxiety and impulse control disorders lead the way with a median age of onset of 11 years. Although efforts to pool data across the globe are rare (Polanczyk et al., 2007), it is likely that a majority of mental, behavioral, and developmental disorders begin in childhood and adolescence. Yet the mental-health needs in young people are often unmet, even in high-income countries. Given the stigma associated with mental disorder and the small number of trained professionals, there is an urgent need to develop efficacious interventions aimed at prevention or early treatment that can be implemented by non-specialist health workers in primary health care settings (Belfer & Saxena, 2006; Patel, Flisher, Hetrick, & McGorry, 2007). There may be an even greater need for school and community-based programs to promote Child and Adolescent Mental Health (Mishara & Ystgaard, 2006).

In contrast to adult disorders (WHO Surveys Consortium, 2004), the estimates of the prevalence, severity, and unmet need for treatment of CAMDs are imprecise. With this in mind, current estimates indicate that as many as 7 to 22 percent of children and adolescents are affected (Patel et al., 2007; Costello, 2008). This is an alarming statistic given that in developing countries 30-50 percent of the entire population is under the age of 18 years.

Viewed from a global perspective, there are a number of other major risk factors not addressed that can negatively affect the development of cognitive skills and social-emotional competence in children and adolescents and contribute to the emergence of CAMDs (Patel et al., 2007). The examples here include the impact of poverty and other related material hardships such as the scarcity of food and poor nutrition, obesity, residential instability and environmental contaminants among others (Grantham-McGregor et al., 2007). Early physical and sexual abuse and the international sex-trade involving children and adolescents frequently can have profoundly adverse effects on CAMH (Harris, Lieberman, & Marans, 2007; Silverman et al., 2007). Children in juvenile justice institutions are another group at high risk. Levels of psychiatric CAMDs can reach very high levels (Vermeiren, Jaspers, & Moffitt, 2006), while therapeutic interventions are scarce and poorly investigated.

The impact of war and chronic conflict also needs to be considered in the global context of CAMH. More than 2 million children have died as the direct result of war and chronic conflict in the last decade and 6 million have been permanently disabled or injured (Conflicts Report, 2005). In addition to the direct effects of trauma on CAMH, it is becoming clear that in addition to Post-Traumatic Stress Disorder, depression and somatoform disorders, chronic conflict and humiliation can limit one's openness to reconciliation and lead to the perceived need to seek revenge (Bayer, Klasen, & Adam, 2007; Bolton et al., 2007). Finally, global access to the internet has brought new focus to the role of bullying (and cyber-bullying) and its impact on the 30-50 percent of children affected with deleterious impacts on their mental health as a result of abusive conduct and psychological trauma (Kim et al., 2006).

It is striking that the two countries at the very bottom of the rankings of child well-being were the two wealthiest English-speaking countries in the world, the United Kingdom and the United States (Olds, Sadler, & Kitzman, 2007). Children growing up in the United Kingdom suffer greater deprivation, worse relationships with their parents and are exposed to more risks from alcohol, drugs, and unsafe sex than those in any other wealthy country in the world. The United States has the highest rate of children growing up in poverty (21.7%) and the highest rate of children living in single-parent homes (20.8%) in rich countries. Both countries have the highest percentage of young people rating their overall health as 'fair or poor.'

In the United States the health care system is fragmented and too often biased toward serving the

well-to-do and not serving individuals with mental disorders.

Studies show that certain factors such as gender and age put some individuals at a higher risk of developing certain psychopathology (risk factors). Specifically, many studies indicate that girls are far more likely to develop internalizing disorders than boys (Leadbeater, Blatt and Quinlan, 1995; Crawford, Cohen, Midlarsk and Brook, 2001; Kubik. et al 2003; Jose and Ratcliff, 2004; Ronnlund and Karlsson, 2006). Researchers have also identified certain factors that may make some adolescents less vulnerable to psychopathology (protective factors). Quality relationships between adolescents and their parents, as well as high self-esteem have been identified as protective factors against problems in psychological adjustment (Schweitzer, Seth-Smith, and Callon, 1992; Delonney 1996; Bryne, 2000; Khewer, Murrelle and Meja, 2001; Erkolanhti, Ilonen, Saarijavi and Terho 2003; Marsh, Parada and Ayotte, 2004; Reid 2004, Manders, Scholfe, Janssens and De Bruyn 2006; margolin, Ronnlund and Karlsson, 2006).

In multicultural studies, the authors compared ratings of behavioral and emotional problems and positive qualities on the Youth Self Report by adolescents in general population samples from 24 countries (N=27,206). The YSR multicultural studies were drawn from developed countries, and only one included society was from Sub-Saharan Africa (unpublished dissertation using the YSR in Ethiopia) [Mulatu MS 1997]. Interestingly, the mean levels of psychopathology from the normative Ethiopian data were within one standard deviation of the 'multicultural' mean along with over 60% of the other societies included in the multicultural comparisons [Rescorla L, Achenbach TM, Ivanova MY, et al 2007, Achenbach TM, Rescorla LA (2007)]. Girls scored significantly higher than boys on internalizing problems, whereas boys scored significantly higher than girls on Externalizing problems. Gender effects were more consistent across cultures for internalizing than for externalizing. On attention problems boys obtained consistently higher scores than girls and older students scored higher than younger adolescents on most YSR scale. Mood swing, arguments, self-criticism and distractibility were among the most common problems reported by adolescents. Suicidal thoughts and gestures, seeing things that are not there, fire setting, running away, and stealing were among the least commonly endorsed problems.

There were low positive scores in Ethiopia, Hong Kong, Korea and Japan that may have reflected strong social pressure against appearing boastful in these countries than others. Positive

quality scores were highest in the United States and Australia reflecting less pressure against boasting in those countries. There is evidence that a person's cultural background determines every facet of illness experience, from linguistic structure and contrast of delusions (Karno and Jerkins, 1993) to the unique meaning of expressed emotion (Kleinman, 1988). It is therefore critical to consider cultural backgrounds as well as exposure to cultural change in order to develop correct inferences of pathology and recognize existing disorders (Favazza, 1984).

Ideally definitions of disorders and taxonomy should be consistent over time, but classification and the operationalisation of disorders vary in different classification systems and within different iterations of the same classifications. Both ICD-10 and DSM-IV, for instance, require that the symptoms present be developmentally inappropriate, persistent and frequent. However, operational definitions of what these terms mean within the context of culture are not provided by either of the two classificatory systems, leaving decisions to ethical interpretations and assessment uncertain and inconsistent across different studies (Bird, 1996). Rates of attention deficit hyperactive disorder with hyperactivity (ADHD) in population-based studies carried out in United States, for example, have fluctuated from less than 1% to 20% (Roberts et al, 1998). A systematic review of 102 world wide population based studies of ADHD, significant variations in the prevalence rates of the disorder across continents were reported (Polonczyk et al, 2007). Significant differences were noted between N. America, Africa and the Middle East, but not among N. America, Europe, Asia, Oceania or S. America. The differences were attributed to differences in instrumentation, methods and definitions used across studies (Ibid 2007). Hence, within the same culture, it has been difficult to achieve diagnostic consensus among clinicians as well as consistency of diagnostic rates across different epidemiologic studies using different diagnostic instruments, thus posing an even greater challenge in achieving diagnostic consistency in different cultural groups.

2.2 The Low and Middle Income Countries Perspective

Mental health research in Low and Middle Income Countries (LAMIC) contributes barely 3-6 percent of published mental health research in the world (Patel et al, 2001), and research on CAMD represents only a small fraction. In these studies, it was established that the evidence base on the burden of child and adolescent mental disorders in LAMIC is relatively small. This very small evidence base on CAMD is due to a number of factors - insufficient skilled human resources, low awareness and low priority.

A key target of Millennium Development Goal is to ensure free primary education by 2015. This goal may never be attained unless educational systems address the needs of children and adolescents with developmental and mental disorders. While much attention has been paid to pedagogical and socio economic determinants of child educational attainment, there has been little acknowledgment of the role of developmental and mental disorders and other CAMD in this regard. Brain damage and consequent neuropsychiatric morbidity, intellectual disability and epilepsy are more common in LAMIC than in high income countries, and this has a direct bearing on the educational attainment of children and its lifelong impact, including secondary morbidity (Grantham et al, 2007). Studies specifically examining the causes of school failure have found that emotional and learning disorders are amongst the most important risk factors. A study that screened 2,190 children who had to repeat school entry grades in South Africa showed that sensory deficits, a lack of educational preparation, starting school too young and very strict discipline leading to student anxiety were factors that contributed to failure (Frets et al, 1990). A prospective cohort study in South Africa found that tobacco use predicted dropout between Grade 8 and Grade 12, after adjusting for a host of potential confounders. A survey of 1,535 primary school children drawn from schools in Bangalore city found that 18% and 15% suffered from psychological disturbance and learning disability, respectively (Shenoy et al, 1998).

Learning problems were associated with a low quality of academic work, poor concentration, not carrying out tasks, low motivation and underachievement (Shenoy et al., 1998). In rural primary school children in India, 13% of those having an IQ of greater than 90 were found to have poor achievement in an arithmetic test and a teacher's assessment (Agarwal et al, 1991). This study suggested a high prevalence of specific learning disabilities in these children, none of which were recognized by the educators or health service providers.

A study in rural India found that more than 80% of the 172 children in a group of dropouts suffered from learning disability as diagnosed by a psychological screening test (Pratinidhi et al, 1999). Data is emerging showing that suicide is now the leading cause of death in young women in Asia, and accounts for up to half of all deaths of adolescent and young adult women (Aaron et al, 2004).

2.3 Kenyan Perspective

A Kenyan study showed that, of the 441 students referred to a psychological assessment clinic by primary schools for poor academic performance, learning disabilities and emotional problems were the commonest causes (Dhadphale et al, 1984). After the violence in Kenya, a study on behavioral and emotional problems among youth from an informal settlement in Nairobi, Kenya, used YSR. The results indicated that girls had significantly higher internalizing (anxious/depressed, withdrawn, and somatic) problem scores than boys. When stratified by sex and compared to multicultural samples from high-scoring societies, Kenyan girls scored significantly higher on all internalizing and social problems while boys scored significantly higher on somatic complaints (Ndetei et al unpublished)

Ndetei D.M et al 2008 found the prevalence rates of anxiety and depression symptoms and syndromes in Kenyan children and adolescents varying widely depending on sex and age and also on the emphasis of the different instruments used, and also according to the cut-off points for the various syndromes and instruments. Clinical diagnostic scores for depression were recorded in 43.7% of all the students. Using the cut-off points for the Multidimensional Anxiety Scale for Children (MASC), anxiety was recorded in 12.9% of all students. Nearly half (40.7%) of the respondents who completed the Short Leyton Obsessional Inventory for Children and Adolescents had positive scores for obsessive disorder, 81.1% were positive for compulsive disorder and an average of 69.1% had positive scores for both obsessive and-compulsive disorders combined. Amongst those who completed the Ndetei-Othieno-Kathuku (NOK) scale for Depression and Anxiety, 49.3% had positive scores for moderate to severe anxiety with or without depression. The SCARED-R yielded high levels (50–100%) for the different syndromes, with obsessive-compulsive disorder at 99.3%, just below separation anxiety and school phobia at 100%. Suicidal thoughts and plans were prevalent at 4.9–5.5%.

A study on bullying in secondary schools in Nairobi, Kenya, between 63.2% (640) and 81.8% (828) of students reported various types of bullying, both direct and indirect, with significant variations found for sex, age, class and year of study, whether in day or boarding school, and the place where bullied. Being bullied was significantly associated with becoming a bully, in turn. (Ndetei D. M. et al

CHAPTER THREE

3.0. METHODOLOGY

3.1 Study Design

A cross-sectional study.

3.2 Study Area

The study area was Busia County- Western Kenya

3.3 The study population

The study targeted boys and girls aged 11-18 years old in rural public secondary and primary schools in the study area.

3.3.1 Inclusion Criteria

1. Rural public school students and pupils in Busia County aged 11-18 years
2. Schools whose principals gave consent.
3. Students and pupils who were ready and willing to give assent.

3.3.2 Exclusion criteria

1. Schools outside Busia County
2. Schools whose principals declined to give consent
3. Students whose parents declined to give consent
4. Pupils in lower classes
5. Incomplete questionnaires were excluded at the time of data analysis

3.4 Sample Size

The study used Cochran's sample size formula that addresses both continuous and categorical statistical variables which are the outcome measures in this study. This formula applies

key risk factors that the researcher was willing to accept but at 95% confident interval.

These risk factors include: the error margin which the researcher was willing to accept as an acceptable risk that is within a true margin error, type1 error also called Alpha, a value usually estimated at 0.05 (5%); relative risk called power, a value estimated at 0.8 (80%), this is a statistical measure to detect a statistical significant difference between the test groups, that is the likelihood that the study will detect deviation from the null hypothesis given that there exists a difference between the study groups. Sample size for the study therefore was determined by the Cochran's sample size formula:

$$N = \frac{Z^2 * P(1-P)}{d^2}$$

Where: Z is the standard normal distribution set at 1.96 which corresponds to 95% confidence level, P is the proportion in the population with characteristics (prevalence) under investigation set at 6.1% (Mulatu 1997) and d is the degree of accuracy desired or the error margin set at 5% (0.05). The youth under investigation were seen in rural area in Ethiopia, where by 6.1% presented with psychopathologies that require interventions. Therefore N will be:

$$\frac{(1.96)^2 * 0.061(1-0.061)}{0.05^2} = 88$$

N=88 (minimum sample per school)

A total of 250 questionnaires were issued to targeted students, one stream from standard five to form one, out of which 220 were analyzed giving a response rate of 88% .

3.5 Sampling

A stratified random sampling from a list of all the schools in the county was used targeting two schools; one day public mixed secondary school and one day public mixed primary school. One stream from standard five to form four was selected, In a school with more than one stream per class, simple random sampling was used to select the stream to be interviewed (yes-no or secret ballot). Where consent was denied, the researcher went back to the pool and randomly select again. Class lists were used to verify if the random selection landed on only bright classes or only poor ones. Where it happened selection was done again.

3.6 Data collection tool

ASEBA Youth Self Report (11-18 years).

The Youth Self Report (YSR) is part of the Achenbach System of Empirically Based Assessments (ASEBA). It is, empirically-derived, quantitative, and sensitive to sex-differences in self-reported psychopathology. Although first developed and tested among United States (US) populations, the YSR has been translated into over 60 languages with published studies of self-reported youth psychopathology from over 40 societies. Multicultural comparisons of YSR samples from over 20 societies have shown that the factor structure (Ivanova MY, Achenbach TM, Rescorla LA, et al 2007) and epidemiology of psychopathology [Rescorla L, Achenbach TM, Ivanova MY, et al 2007] are remarkably consistent across diverse societies from both developed and developing countries. Currently we do not have YSR normative data for Kenya.

The ASEBA Youth Self Report (YSR) contains 112 items that assess children's self report of behavioral and emotional problems and positive qualities too. Children are asked to report on their behaviors and feelings over the past six months. Two broad internalizing and externalizing factors are obtained as well as eight more specific subscales. All subscales have been shown to have moderate to good internal consistency as well as high test retest reliability (Achenbach, 1991).

The YSR syndrome scales are: Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, Aggressive Behavior and Other Problems

3.7 Procedure of Administration

The researcher explained to the school principals about the research through the consent explanation form and consent was granted by signing the consent form. The researcher requested to have one stream from standard five to form four. Ballot papers were used to select one stream per class in schools with more than one stream. The researcher explained to the students about the research, its risks and benefits, assured them of confidentiality and freedom of participation without coercion. Those who accepted and met inclusion criteria filled the assent form and anonymous questionnaire: - the YSR. After filling in, they dropped in sealed boxes, one for questionnaires and another for assent forms.

The test took 30-35minutes and the researcher kept the collected questionnaires separate from signed assent forms so as not to individually identify any single assessment to any youth, they were then transported by the researcher to the data entry point, where they were locked in a cabinet awaiting data analysis, which the researcher started immediately after all the selected schools had been visited. This ensured that confidentiality at all levels was maintained.

3.8 Administration of the Questionnaires to the students

On the appointed day and time, first the assent forms were distributed, and then explanation of assent, signing and any enquiries' or questions followed. Questionnaire sets were distributed by the researcher and once every child had a copy, the researcher read out loud the questions one by one in both English and Kiswahili as they ticked the items. The two sets consisted of;

- a. Assent explanation form.
- b ASEBA Youth Self Report (11-18 years) questionnaire

3.9 Data Analysis:

Data was double entered by two separate people and then compared for inconsistencies and corrected before the final cleaned database was analyzed. Data exploration and statistical analyses was completed using SPSS statistical software and to systematically classify data into syndromes, YSR Profile for boys and girls scale was used.

3.10 Presentation of data:

The analyzed data is presented in tables.

3.11 Ethical consideration

The process began by obtaining approval from the Department of Psychiatry, University of Nairobi and then application of ethical clearance from Kenyatta National Hospital Research and Ethics Committee. The researcher then got permission from the Ministry of Education and District Education office and from the heads of the concerned institutions. Finally since most of the participants were minors' parents consent was to be given. More importantly, all assessments were ANONYMOUS and no personal identifying information was gathered.

Therefore, there was no way to link the youth assessments to individual youth after the assessments was completed. This protection of identity helped guarantee confidentiality. The research did not involve any invasive procedures. All the procedures and objectives of the study were discussed with the heads of the institutions for them to give consent of the study.

The heads of concerned institutions were free to give or refuse consent on behalf of the institution. Confidentiality was assured to the students in the introductory letter before filling in the questionnaires. All students or pupil ready to give assent were allowed to participate without any discrimination; they were also informed that they did not have to participate in the research if they did not want to. At the same time they were free to withdraw at any stage if they wanted to, without penalties.

3.12.1 Benefits

- The study provides much needed information on the prevalence of youth psychopathology and related risk and protective factors specific to rural areas particularly Busia County.
- The participating schools will be informed on the state of psychopathology in the institution
- The students got a chances to open there feelings through the questionnaires
- The school and students were informed where psychological help is available
- The study is of great benefit to psychologists and Kenyan government in coming up with mental health policies.

3.12.2 Risks

Uncomfortable feelings when students or pupils self identified and rated themselves highest with mental problems.

CHAPTER FOUR

4.0 DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

The purpose of this chapter is to analyze the variables involved in the study and estimate the model described in the previous chapter. Data collected was both quantitative and qualitative. Qualitative data was analyzed using descriptive statistics such as mean, mode, median while quantitative data was analyzed using p – value, Chi – square (X^2), correlation (r) and regression (r^2). Data was also presented using tables

4.2 General information

4.2.1 Response Rate

A total of 250 questionnaires were issued to targeted students out of which 220 were analyzed giving a response rate of 88% .Table 1 below shows the response rate of all the respondents.

Table 1: Response rate

Questionnaires issued	Questionnaires returned	Response rate
250	220	88%

According to Mugenda and Mugenda (1999) a 50% response rate is adequate, 60% good and above 70% is rated very good. Basing on this assertion; the response rate of 88% in this case was very good.

To achieve the study objectives, it was paramount to determine the number of boys and girls in response rate. As such, the researcher found it necessary to find out the response rate according to gender, age and school.

Table 2: Response Rate by Gender

Gender	Frequency	Percentage
Boys	101	45.9%
Girls	119	54.1%

Majority (119) 54.1% of the respondents were girls, while the rest (101)45.9% of the respondents were boys. This implies that there was normality in gender distribution between boys and girls in the study. This is depicted by table 2 above.

Table 3: Response Rate by age

Age	Frequency	Percentage	Mean	Standard deviation
11	6	2.7%	15.01	2.07
12	29	13.2%		
13	26	11.8%		
14	31	14.1%		
15	25	11.4%		
16	41	18.6%		
17	31	14.1%		
18	31	14.1%		

Table 3 indicates the response rate by age; from the findings the response rate had a mean of 15.01 with a standard deviation of 2.07. Majority (41)18.6% of the respondents were within 16 (median) years. Ages 14, 17, and 18 had the same response rate of (31)14.1%. Only age 11 (6)2.7% had the lowest response rate as compared to others. However, there was normality in response rate by age.

Table 4: Response Rate by level of School

School	Frequency	Percentage
Secondary School	91	41.4%
Primary School	129	58.6%

There were a significantly higher number of respondents in primary school (129) 58.6% than in secondary school (91)41.4% as shown by table 4 above. Due to the free primary school education this was expected.

4.3 The prevalence and pattern of psychiatric syndromes

The main purpose of the study was to determine the level of late childhood and adolescent psychopathology in rural public secondary and primary schools in Busia County. To obtain this objective the researcher found it paramount to find out the prevalence and pattern of psychiatric syndromes among the study participants.

Table 5: Prevalence of ASEBA Total problems

Psychopathology	Normal		Subclinical		Clinical		Total	
	No	%	No	%	No	%	No	%
Anxious/Depressed	104	47.3%	53	24.1%	63	28.6%	220	100%
Withdraw/Depressed	135	61.4%	50	22.7%	35	15.9%	220	100%
Somatic/ Problems	100	45.5%	47	21.4%	73	33.2%	220	100%
Social Problems	111	50.5%	49	22.3%	60	27.3%	220	100%
Thought Problems	202	91.8%	30	5.9%	5	2.3%	220	100%
Attention Problems	169	76.8%	34	15.5%	17	7.7%	220	100%
Rule – Breaking Behavior	176	80%	31	14.1%	13	5.9%	220	100%
Aggressive behavior	175	79.5%	26	11.8%	19	8.6%	220	100%
Mean	147	66.6%	40	17.1%	37	16.2%		
standard deviation	38.97	17.69	16.77	6.45	36.22	18.2		

Table 5 indicates total percentage prevalence of ASEBA total problems in the study population. From the study findings it was revealed that the mean percentage of respondents with subclinical total problems was (40) 17.1% with a standard deviation of 6.45, while respondents with clinical range had mean percentage of (37) 16.2% and a standard deviation of 18.2.

Anxious/depressed syndrome had the highest score on subclinical of (53)24.1% with that on clinical as (63)28.6%. The highest score in the clinical range was on somatic complains at (73)33.2%. Other subclinical problems were withdraw/depression (50)22.7%, somatic complaints (47)21.4%, social problems (49)22.3%, thought problems (30)5.9%, attention problems (34)15.5%, rule – breaking behavior (31)14.1% and aggressive behavior (26)11.8%, while (60)27.3%, (35)15.9%, (19)8.0%, (17)7.7%, (13)5.9% and (5)2.31% of the respondents had clinical problems on social problems, withdrawn/depression, aggressive behavior, attention problem, rule – breaking problem and thought problem respectively.

Table 6: Prevalence of ASEBA internalizing syndromes

Psychopathology	normal		subclinical		Clinical		Total	
	No	%	No	%	No	%	No	%
Anxious/depressed	104	47.3%	53	24.1%	63	28.6%	220	100%
Withdraw/Depressed	135	61.4%	50	22.7%	35	15.9%	220	100%
Somatic/ Problems	100	45.5%	47	21.4%	73	33.2%	220	100%
Mean	113	51.4%	50	22.7%	57	25.9%		
Standard deviation	19.2	8.6	3.0	1.35	19.5	9.0		

The analysis of the study findings indicated that the mean percentage of respondents with clinical ASEBA internalizing syndromes was (57)25.9% with a standard deviation of 9.0 and (50)22.7% in the subclinical range with a standard deviation of 1.35. Further on, the research revealed that the internalizing syndrome with the highest clinical range was somatic complains at (73)33.2%, followed by anxious/depressed at (63)28.6% and withdrawn/depression at(35)15.9%.

The mean percentage for other subclinical internalizing problems were anxious/depression (53)24.1%, withdraw/depression (50)22.7% and somatic/problems (47)21.4%.

Table 7: Prevalence of ASEBA externalizing syndromes

Psychopathology	Normal		Subclinical		Clinical		Total	
		%	No	%	No	%	No	%
Rule-Breaking Behavior	176	80%	31	14.1%	13	5.9%	220	100%
Aggressive behavior	175	79.5%	26	11.8%	19	8.6%	220	100%
Mean	175.5	79.8%	32.5	13.0%	15	7.2%		
Standard Deviation	0.71	0.35	2.1	1.62	2.8	1.34		

As in Table 7 above on ASEBA externalizing syndromes revealed the mean percentage of respondents with clinical externalizing syndrome to be (15)7.2%. Majority (19)8.6% of the respondents reported to be having aggressive behavior in the clinical range, while (13)5.9% had rule – breaking behavior in the clinical range. Respondents with subclinical externalizing syndrome had a mean percentage of 13.0%. (31)14.1% of the respondents had rule - breaking behavior and (26)11.8% had aggressive behavior in the subclinical.

4.4.0 Relationship between gender (boys/ girls), age group, schools and psychopathology

Table 8: Relationship between gender (boys/girls) and psychopathology.

Psychopathology	Gender	Normal		Subclinical		Clinical		Total		X ²
		No	%	No	%	No	%	No	%	
Anxious/depressed	Boys	54	53.5%	25	24.8%	22	21.7%	101	45.9%	X ² = 4.612 P = 0.100 d.f = 2
	Girls	44	37.0%	35	28.5%	41	34.5%	119	54.1%	
Withdraw/Depressed	Boys	60	59.4%	25	24.8%	16	15.8%	101	45.9%	X ² = 0.454 P = 0.797 d.f = 2
	Girls	70	58.8%	30	25.2%	19	16.0%	119	54.1%	
Somatic/ Problems	Boys	37	36.6%	36	35.6%	28	27.8%	101	45.9%	X ² = 22.696 P = 0.00* d.f = 2
	Girls	33	27.7%	41	34.5%	45	37.8%	119	54.1%	
Social Problems	Boys	38	37.6%	31	30.7%	32	31.7%	101	45.9%	X ² = 13.368 P = 0.01* d.f = 2
	Girls	73	61.4%	18	15.1%	28	23.5%	119	54.1%	
Thought Problems	Boys	91	90.1%	6	6.0%	4	3.9%	101	45.9%	X ² = 2.40 P = 0.301 d.f = 2
	Girls	111	93.3%	7	5.9%	1	0.8%	119	54.1%	
Attention Problems	Boys	74	73.3%	20	19.8%	7	6.9%	101	45.9%	X ² = 2.743 P = 0.254 d.f = 2
	Girls	95	79.8%	14	11.8%	10	8.4%	119	54.1%	
Rule-Breaking Behavior	Boys	81	80.2%	18	17.8%	2	2%	101	45.9%	X ² = 6.72 P = 0.035* d.f = 2
	Girls	95	79.8%	13	10.9%	11	9.3%	119	54.1%	
Aggressive behavior	Boys	93	78.2%	14	11.8%	12	10%	119	45.9%	X ² = 0.693 P = 0.707 d.f = 2
	Girls	82	81.2%	12	11.9%	7	7%	101	54.1%	

The results indicated statistical significant differences in somatic problems $P=0.00$, social problems $P=0.01$ and rule breaking behavior $P=0.035$. Table 8 indicates the p values of anxious/depression, withdraw/depression, thought problems, attention problems, and aggressive behavior to be 0.100, 0.797, 0.301, 0.254, 0.707 respectively.

For anxious/depression, withdraw/depression and somatic/problems girls had a greater percent in clinical range more than boys.

In anxious/depression (41)34.5% girls had clinical problem as compared to (22)21.7% boys, in withdraw/depression (19)16% girls had clinical problem compared to (16)15.8% boys, while in somatic problems (45)47.8% of girls had clinical problems as compared to (28)27.8% of boys. This did confirm that girls had significantly higher percentage in internalizing problems than boys.

Table 9: Relationship between age groups and psychopathology

Psychopathology	Age group	Normal		Subclinical		Clinical		Total		Test
		No	%	No	%	No	%	No	%	
Anxious/depressed	11 – 14yrs	50	54.3%	23	25.0%	19	20.6%	92		r = 0.150 p = 0.026* s.d = 0.65
	15 – 18yrs	54	42.2%	30	23.4%	44	34.3%	128		
Withdraw/Depressed	11 – 14yrs	53	57.6%	19	20.6%	20	21.7%	92		r = 0.108 p = 0.110 s.d = 0.068
	15 – 18yrs	82	64.1%	31	24.2%	15	11.7%	128		
Somatic/ Problems	11 – 14yrs	49	53.3%	20	21.7%	23	25.0%	92		r = 0.154 p = 0.22 s.d = 0.66
	15 – 18yrs	51	39.8%	27	21.1%	50	39.1%	128		
Social Problems	11 – 14yrs	48	52.2%	17	18.5%	27	29.3%	92		r = 0.004 p = 0.958 s.d = 0.068
	15 – 18yrs	63	49.2%	32	25.0%	33	25.8%	128		
Thought Problems	11 – 14yrs	79	85.9%	10	10.7%	3	3.3%	92		r = 0.158 p = 0.019* s.d = 0.067
	15 – 18yrs	123	96.1%	3	2.3%	2	1.6%	128		
Attention Problems	11 – 14yrs	71	77.2%	12	13.0%	9	9.8%	92		r = 0.024 p = 0.726 s.d = 0.065
	15 – 18yrs	98	76.5%	22	17.2%	8	6.3%	128		
Rule–Breaking Behavior	11 – 14yrs	76	82.6%	12	13.0%	4	4.4%	92		r = 0.063 p = 0.349 s.d = 0.065
	15 – 18yrs	100	78.1%	19	14.8%	9	7.1%	128		
Aggressive behavior	11 – 14yrs	77	83.7%	11	12.0%	4	4.3%	92		r = 0.116 p = 0.085 s.d = 0.062
	15 – 18yrs	98	76.6%	15	11.7%	15	11.7%	128		

On the relationship between age groups, Pearson correlation was determined between age groups (11-14yrs) and (15-18 yrs) in all ASEBA total problems. On anxious depression, there was Pearson correlation (15%) between both age groups, $P = 0.026$.

There was also a Pearson Correlation (11%, 15.4%, 0.4%, 15.8%, 2.4%, 6.3% and 11.6%) between age groups in Withdraw/depressed, Somatic problems, Social problems, Thought problems, Attention Problems, Rule-breaking behavior and Aggressive behavior respectively. This implied that all the ASEBA total problems correlated with the age groups.

Regarding anxious depression, (44)34.3% of age group 15–18 years had clinical problem compared to (19)20.6% of age group 11-14 years, while on somatic/problems (50)39.1% of age group (15 – 18 years) had a high percentage in clinical problem than age group age 11 – 14 years 23(25%). Thus, from the results, age group 15 – 18years had a significantly higher percentage in ASEBA total problems, especially in internalizing syndromes than age group 11- 14 years.

Table 4.4.1: Relationship between schools (primary or secondary) and psychopathology

On the relationships between schools (primary and secondary) and Psychopathology, the researcher found it necessary to use both r and r^2 in determining the relationship. R^2 was used to determine the relationship and r was used to determine the strength of the relationship.

Table 10: Relationship between schools

Psychopathology	School	Normal		Subclinical		Clinical		Total		Test
		No	%	No	%	No	%	No	%	
Anxious/depressed	Secondary	37	40.7%	24	26.4%	30	32.9%	91		r = -0.108 p = 0.248 r ² = 0.12
	Primary	67	51.9%	29	22.5%	33	25.6%	129		
Withdraw/Depressed	Secondary	50	54.9%	24	26.4%	17	18.7%	91		r = -0.103 p = 0.129 r ² = 0.011
	Primary	85	65.9%	26	20.2%	18	14.0%	129		
Somatic/ Problems	Secondary	29	31.9%	22	24.1%	40	44%	91		r = -0.233 p = 0.000* r² = 0.054
	Primary	71	55.0%	25	19.4%	33	25.6%	129		
Social Problems	Secondary	39	42.8%	29	31.9%	23	25.3%	91		r = -0.055 p = 0.414 r ² = 0.003
	Primary	72	55.8%	20	15.5%	37	28.7%	129		
Thought Problems	Secondary	82	90.1%	5	5.5%	4	4.4%	91		r = -0.086 p = 0.202 r ² = 0.007
	Primary	120	93.0%	8	6.2%	1	0.8%	129		
Attention Problems	Secondary	73	80.2%	13	14.3%	5	5.5%	91		r = 0.078 p = 0.249 r² = 0.006
	Primary	96	74.4%	21	16.3%	12	9.3%	129		
Rule-Breaking Behavior	Secondary	73	80.2%	11	12.1%	7	7.7%	91		r = -0.024 p = 0.728 r ² = 0.001
	Primary	103	19.9%	20	15.5%	6	4.6%	129		
Aggressive behavior	Secondary	68	74.7%	11	12.1%	12	13.2%	91		r = -0.128 p = 0.058 r ² = 0.016
	Primary	107	82.9%	15	11.6%	7	5.5%	129		

From the above study findings, only attention problems had a positive relationship ($r = 7.8\%$) between schools, $P = 0.249$. However, $r^2 = 0.6\%$ indicated a very weak relationship. Other syndromes had a very weak relationship between schools as indicated by anxious/depressed ($r=12\%$), withdraw/depressed ($r^2 = 1.1\%$), somatic problems ($r^2 = 5.4\%$), social problems ($r^2 = 0.3\%$), thought problems ($r^2 = 0.7\%$), attention problems ($r^2 = 0.6\%$), rule-breaking behavior ($r^2 = 0.1\%$) and aggressive behavior ($r^2 = 1.6\%$). However, this relationship was revealed to be a negative relationship as reported by the negative r values. Somatic problems has a significant p

value ($p=0.00$) than attention problems, only r differs more.

In the secondary schools, majority (40)44% of the respondents had clinical somatic/problems, while in primary school, majority (37)28.7% of the respondents had clinical social problems. In primary schools (33)25.6% respondents had clinical somatic and anxious/depression problems. Internalizing ASEBA problems were reported to be slightly high in secondary schools than in primary schools. On anxious/depression, (30)32.9% respondents from secondary schools had clinical symptoms as compared to 33 (25.6%) of the respondents from primary schools, while (24)26.4% of the respondents from secondary schools had subclinical symptoms as compared to 29(22.5%) respondents from primary schools.

5.0 DISCUSSION

5.1.1: Prevalence of ASEBA total problems

Many of the students had subclinical ASEBA total problems with a mean percentage of (40)17.1%, while those with clinical problems had a mean percentage of (37)16.2%. This corresponds to (Patel et al., 2007; Costello, 2008) who argued that current estimates indicate that as many as 7 to 22 percent of children and adolescents are affected.

On internalizing problems, majority of the students had a mean percentage of (57)25.9% in clinical range, while the mean subclinical problems was (50)22.7%. On the other hand, externalizing had (15)7.2% in the clinical and 13% in the subclinical range. This is supported by Association of Child and Adolescent Mental Study (2008) who revealed that Anxious/depression syndrome showed the largest Effect size (Es) and TRF (3% ES for ages 6 – 15), and YRS (3% ES for ages 11 – 16). Prevalence of internalizing syndromes exceeds externalizing problems by mean percentage 9.7% in subclinical range and 18.7% in clinical range. This result concurs with Association of Child and Adolescent Mental Study (2008) that the ESs for difference among societies on the internalizing scale exceeded those of externalizing syndrome.

5.1.2: Relationship between gender (boys and girls) and psychopathology

There was no statistically significant difference in anxious/depression, withdraw/depression, thought problems, attention problems, and aggressive behavior between boys and girls, however somatic problems ($p=0.00$), social problems ($p=0.01$) and rule-breaking behavior ($p=0.035$) had a statistically significant difference between boys and girls. In anxious/depression girls (41)34.5 had clinical problem as compared to boys (22)21.7%, in withdraw/depression girls (16%)had more clinical problem than boys 15.8%, while in somatic problems (45)47.8% of girls had clinical problems as compared to (28)27.8% of boys. This confirmed that girls had a significantly higher percentage in internalizing problems than boys.

It was also revealed that girls needed more attention in rule – breaking behavior where they reported more than boys. This again indicates immediate attention to girl’s rule- breaking behavior and somatic complaints. The above findings concurs with findings by Rescorla et al, 2007 that girls scored significantly higher than boys on internalizing problems whereas boys scored significantly higher than girls on externalizing problems. Gender effects were more consistent across cultures for internalizing than for externalizing.

5.3.3: Relationship between age groups (11 – 14 yrs and 15 – 18yrs) and psychopathology

Thought problems had the highest correlation between age groups (15.8% correlation). This implied that students with 11 – 14yrs would increase thought problems by 15% after moving to the next age group. Anxious/depression was second syndrome indicating a correlation of 15% with age groups. This indicated that more counseling was needed for student within the age of 11 – 14 before they moved to the next age group.

From the results anxious depression (44)34.3% of age group 15 – 18 years had clinical problem compared to (19)20.6% of age group 11-14 years, while on somatic/problems (50)39.1% of age group (15 – 18) had a high percentage in clinical problem than (23)25% of age group (11 – 14). Thus from the results, age group 15 – 18 had a significantly higher percentage than age group 11- 14. Thus, age group 15 -18 years had a major problem in clinical internalizing problem as compared to age group 11 – 14years and corresponded to findings in relationship between age groups (11 – 14 yrs and 15 – 18yrs) and psychopathology that total ASEBA syndromes increase by 15.8% from age group 11 – 14 years to age group 15 – 18 years.

5.3.4: Relationship between Schools (primary and secondary) and psychopathology

The findings from the study indicated a very weak negative relationship between psychopathology and school level (R squared ranging from 0.001 to 0.120 and R ranging from -0.233 to -0.024). This meant that most ASEBA problems did not depend on school level category in this population but more on age, noting that quite a number of 15, 16 17, and 18 years old could still be found at the primary level. This calls for same attention to both secondary and primary schools.

From the results, Internalizing ASEBA problems were reported to be slightly high in secondary school than in primary school. In anxious/depression, (30)32.9% of respondents from secondary schools had clinical symptoms as compared to 33 (25.6%) of the respondents from primary schools, the highest syndrome in clinical range being somatic problems, (40)44% secondary compared to (33)25.6% primary.

It may be important to focus on the especially high levels of somatic complaints reported by both boys and girls in the sample. High levels of somatic complaints have been reported in youth from more disadvantaged or lower socioeconomic populations according to Wadsworth & Achenbach, 2002; Taylor & Szatmari et al, 1996 and so it may not be a surprise to note it from this rural youth whereby most of them come from poor background, though it may be difficult to differentiate between somatic complaints related to psychopathology and those from non-psychiatric causes like infectious disease. It is also possible that the high somatic complaints reflect cultural factors in the understanding and expression of psychiatric symptoms or further still socializing children not to express themselves may lead them to somatize as a way of calling for help when they have issues (commonly referred to as children are to be seen and not to be heard). Overall, our results reveal the need for more attention to internalizing and social problems for these rural public school youth.

5.4: Study Limitations

1. The timing of the study may have brought in biases, the study was carried out on the first week of school opening when most schools do exams called eye opener, so most students (especially secondary) were reluctant to participate as they wanted to prepare for their next examination and those who participated may not have been keen enough for the same reason,

a bias that may result in under or over estimation of the prevalence.

2. In primary schools, organizations offering scholarships had visited schools the previous term and most children associated outsiders coming to school as scholarship providers a bias that may have influence their response to questionnaires.
3. Another potential limitation was the use of a tool developed in a different culture, despite the fact that I translated to Kiswahili and back translated it to English, the instrument I used to assess the psychopathology of this sample of Kenyan youth was designed and standardized in United States it may not have assessed and incorporated culturally-specific and locally-relevant symptoms.
4. This study recruited children who were 11-18 years; this may have left out psychopathology in other excluded age groups
5. The study was done in only two schools in Busia County; the county has other schools, so the findings of this study may not be guaranteed.

5.5: Delimitation

1. The use of an outside standardized tool is valid and my data is useful for direct comparison with other societies past and future that utilize the same assessment tool.
2. The study used ASEBA YSR (11-18) to measure the prevalence in this population, it is an internationally used instrument and therefore possible to compare the results to other international researches conducted, this gives credibility to this research work
3. Further still, this is the first study of this type in Kenya and it provides data for future similar studies.

5.6: Conclusion

The study focused on prevalence and relationship of psychopathology with gender, school level and age group of the study population. The study therefore concludes that there are mental health problems in rural public secondary and primary schools in Busia County in Western Kenya. Girls had more clinical internalizing ASEBA problems indicating mental health problems among girls in rural public secondary and primary schools. Although not the same as in girls, prevalence of clinical and subclinical internalizing syndromes was also reported in boys, hence due attention

to boys should also be considered as much as that given to girls.

5.7: Recommendations

5.7.1: Prevalence of ASEB total problems

From the discussion above it was noted that there was increasingly high number of student with clinical ASEBA total problem, specifically increasing with age; as such, the study recommends mental treatment services and counseling in rural public secondary and primary schools. In addition, girls need more mental treatment services in internalizing ASEBA syndromes, while the alarming statistics in boy's clinical externalizing syndrome calls for special attention.

5.7.2: Relationship between gender (boys and girls) and psychopathology

The result above revealed that boys and girls had more or less the same but high percentage in clinical somatic problems. Therefore the study recommends mental health treatment on all of them.

5.7.3: Relationship between age groups (11 – 14 yrs and 15 – 18yrs) and psychopathology

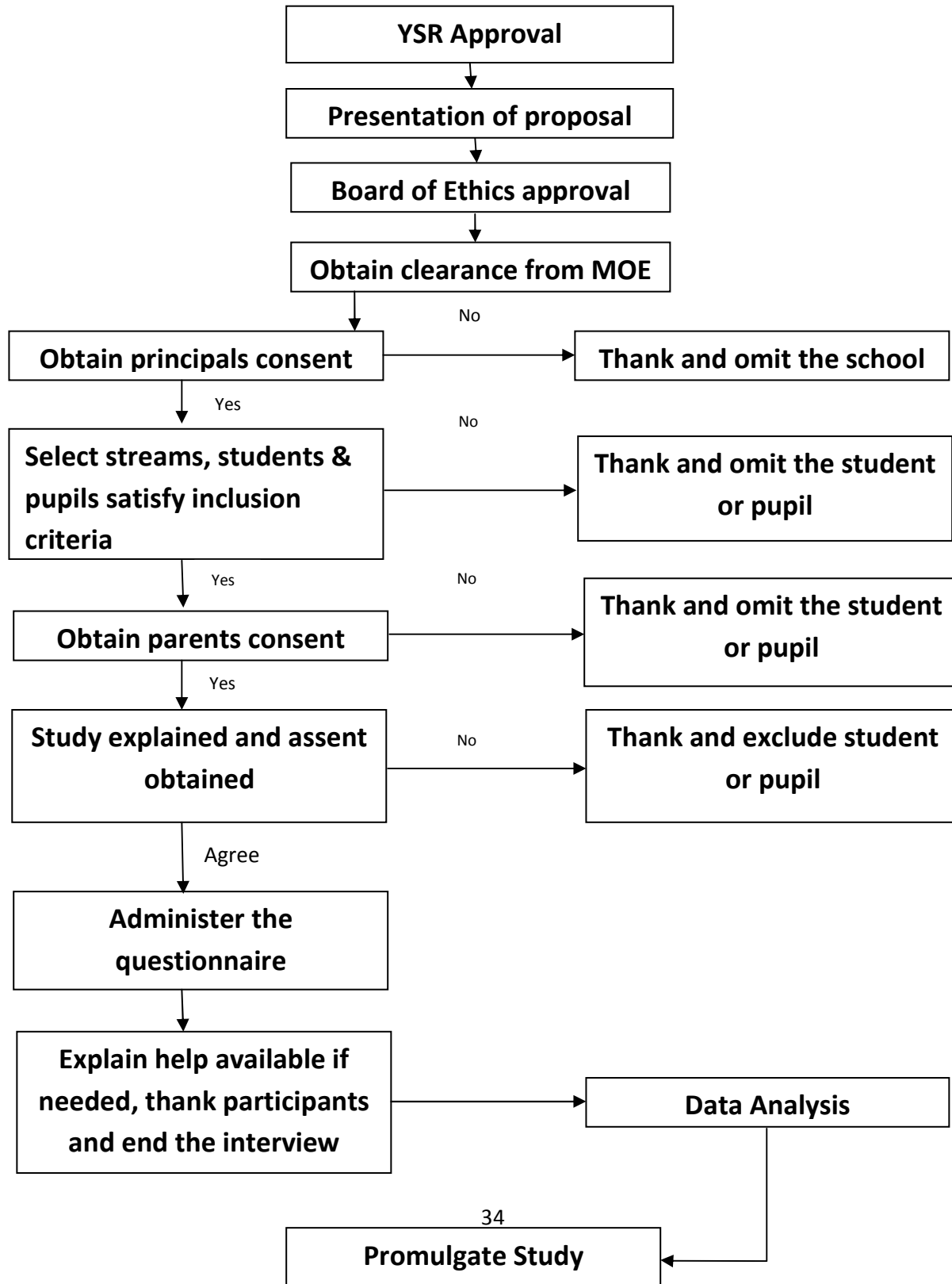
The findings from the study recommend more use of the relationship between age groups and psychopathology results by the ministry of health in addressing mental health problems in rural areas. More mental health personnel are needed in primary school where many students are within 11-14 years so as to prevent any increase of ASEBA total problems as the students grows. Regular check in students' mental health should be enhanced by age at both levels of schools education.

5.7.4 Recommendation for further research

1. A similar study to be replicated on a lager sample in other counties in Kenya so that should similar results be found, a policy for the whole country can be implemented.
2. Further research is suggested in urban public and secondary schools and areas that need more research include Impact of ASEBA total problems in rural public and secondary schools.
3. Future studies in this area might need to use culturally and locally standardized tools to incorporate culturally-specific and locally-relevant symptoms.

The study recommended immediate mental health treatment services to the youth in rural schools.

PROJECT FLOW CHART



TIME SCHEDULE

PROPOSAL DEVELOPMENT	SEP.T 2010 TO MARCH. 2011
PRESENTATION	APRIL 2011
CORRECTION	APRIL 2011
ETHICAL COMMITTEE	APRIL TO MAY 2011
DATA COLLECTION	MAY TO JUNE 2011
DATA ANALYSIS	JUNE 2011
RESULTS PRESENTATION	END OF JULY 2011

BUDGET

a) Proposal Preparation

- | | |
|---------------------------------|----------------|
| 1. Proposal Typing and Printing | KSHS. 2,000.00 |
| 2. Photocopies | KSHS. 2,000.00 |
| 3. KNH Ethical Committee Fees | KSHS. 500.00 |
| 4. 1 Flash Memory (2 GB) | KSHS. 2,000.00 |

b) Materials and Equipment

- | | |
|-------------------|--------------|
| 1. 5 Pens | KSHS. 100.00 |
| 2. 3 Box Files | KSHS. 900.00 |
| 3. Packet Staples | KSHS. 300.00 |
| 4. 1 Stapler | KSHS. 500.00 |

c) Preparation of Questionnaires

- | | |
|------------------|----------------|
| 1. Typing | KSH. 1200.00 |
| 2. Printing | KSH. 1400.00 |
| 3. Photo copying | KSH. 18,000.00 |

d) Support Staff

- | | |
|--|-----------------|
| 1. Researcher (30 days x kshs. 3,000/ day) | KSHS.90,000.00 |
| 2. Collecting Data (4x10 days x Kshs. 1000/ day) | KSHS. 20,000.00 |
| 3. Biostatistician | KSHS. 34,000.00 |

e) Transport

- | | |
|---------------------------------|----------------|
| 1. Of researcher within Nairobi | KSHS. 8,000.00 |
|---------------------------------|----------------|

- | | |
|--|-----------------|
| 2. Of researcher to study area | KSHS. 10,000.00 |
| 3. Of researcher around the study area | KSHS. 10,000.00 |
| 4. Of data Collection (4x10 days x 250/day | KSHS. 10,000.00 |

f) Communication

- | | |
|-------------------------------------|----------------|
| 1. Concept and Proposal Preparation | KSHS. 3,000.00 |
| 2. E – Mail | KSHS. 2,000.00 |

g) Preparation of Final Report

- | | |
|---|----------------|
| 1. Typing Preliminary Results | KSHS. 2,000.00 |
| 2. Photo copies for Supervisors | KSHS. 4,000.00 |
| 3. Final draft typing | KSHS. 4,000.00 |
| 4. Printing of Final Report | KSHS. 8,000.00 |
| 5. Binding of 10 copies of the Research Books | KSHS. 8,000.00 |

h) TOTAL COSTS

- | | |
|-----------------------------|------------------------|
| 1. SUB – TOTAL | KSHS. 24,190.00 |
| 2. CONTINGENCY (10%) | KSHS. 24190.00 |
| 3. GRAND TOTAL | KSHS. 266090.00 |

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APPENDICES:

Appendix 1: School Principal Explanation and Consent Form:

My name is Maryanjeline M.A Barasa, a Master of Science student in Clinical Psychology at the Department of Psychiatry, University of Nairobi. I have chosen to write my dissertation on: - **Determining the Prevalence of Late Childhood and Adolescent Psychopathology in Rural Public Schools in Busia County.** I have selected your institution as one of the participating schools. In the study it is only students who will be asked to complete one self administered questionnaire, YSR, an internationally used instrument measuring various psychopathological problems in the youth aged 11-18 years.

Apart from the highly confidential information from the student, there will be no physical procedures. However some information may be painful to the student but this study will provide a chance to the student to open through the questionnaire. The overall result will help us to understand the prevalence of psychopathology in this group of students, to identify the psychopathology syndromes on which adolescents in this population rate themselves highest, and to find out whether there is a correlation between the self reported psychopathology syndromes and factors such as gender and age in this population. Students that will self identify with any psychopathology will be given information on where they can obtain help. Apart from the benefits to the students, the school and I, the researcher, there will be no benefits or any financial incentives for taking part in this study. I will get all necessary official approvals for this study to be done which I will make available to you before the study begins.

As the Head of the school, I regard you as the guardian of the students, I am therefore requesting for your permission to carry out the study from which you can withdraw at any time in the course of data collection. I will also explain to the students the nature of the study and request them to complete the questionnaire. Attached please find the questionnaire that will be given to the students.

Yours Faithfully

Maryanjeline M.A Barasa Msc. Clinical psychology Student

Department of Psychiatry, University of Nairobi: Tel: 0722 – 526279

Appendix 2: Consent by Principal:

I Being head of
..... Secondary/ Primary school and having
been explained the nature of the study by maryanjeline M.A Barasa, P.O. Box 72300 – 00200
Nairobi, Tel: 0722 – 526279, as detailed in a write – up, do here by give consent for the students
in my school to participate in the study. I understand I can withdraw this consent any time before
the data collection is over.

Name:

Signature ... School Stamp:

Date:

Witnessed by:

Name:

Signature:

Date:

Appendix 3: Assent Explanation for Participants in the Study

My name is Maryanjeline M.A Barasa from the department of psychiatry, university of Nairobi. I am carrying out research to determine the prevalence of late childhood and adolescent psychopathology in rural public Secondary and Primary schools in Busia County Western Kenya; I will also use the information for my Masters Degree dissertation in Clinical Psychology in the same University.

Although I got permission from the school principal to carry out the research, I would like to explain to you what I intend to do so that you can decide yourself whether you wish to participate or not. I request you to participate in the research to find out how widespread psychopathology is in your school and others. If you agree to participate, sign the assent form then read and respond appropriately to a list of questions below that ask about your personal details and behavior. This exercise should not take more than 35 minutes in total.

For purposes of clarity, Child and adolescent mental health is the capacity to achieve and maintain optimal psychological function and well being. It is directly related to the level reached and competence achieved in psychological and social functioning. It is viewed as a resource essential to subjective well being and to our ability to perceive, comprehend and interpret our surroundings, to adapt to them or change them if necessary, and to communicate with each other and have successful social interactions. Child and adolescent mental ill-health, on the other hand, is about the inability of a child to reach the optimum level of competence and functioning reflected in disorders, such as depression and learning disabilities.

Risk/ Discomfort:

The only risk from this study may be the uncomfortable feelings when students self identify and rate themselves highest with mental problems. No test will be done on you such as blood tests or any other specimen taken.

Benefits:

If you feel you have rated yourself high with mental problems, you can contact me and I will arrange for help. You can still send me a message on this number 0722 – 526229 or write a letter to me on this address,

Maryanjeline M.A Barasa

P.O. Box 72300 – 00200, Nairobi

If you still wish you can ask the teacher or somebody else you trust to contact me.

The results of this study will provide much needed information on the prevalence of youth psychopathology and related risk factors specific to rural areas and Busia County in particular.

Confidentiality:

All the information that you write will be treated with confidentiality. To ensure this you do not write your name and class on any questionnaire. You will not be paid to take part in the study, it is your choice. If you choose to participate you will be given a questionnaire to fill in. Once you have completed, fold and drop the questionnaire and assent form in separate sealed boxes. If you do not want to complete the questionnaire still drop it into the sealed box. I will respect your decision not to complete the questionnaire and you will not be penalized in any way .Your completion of the questionnaire will also be taken as your assent to participate in the study.

Yours Sincerely

Maryanjeline M.A Barasa

Masters of Science of Clinical Psychology Student

Department of Psychiatry, University of Nairobi

Tel: 0722 – 526279

Appendix 4: Participant's Assent

IIn.....Secondary / Primary School, voluntary assent to participate in this study which has been explained to me in English by the researcher Maryanjeline M. A. Barasa.

I have had the opportunity to ask questions and get clarifications from the researcher. The researcher will answer or give me directions on future questions I may have concerning the study.

Participants Signature.....

Researchers Signature.....

Date.....

Appendix 5: Parents Explanation and Consent Form:

My name is Maryanjeline M.A Barasa, a Master of Science student in Clinical Psychology at the Department of Psychiatry, University of Nairobi. I have chosen to write my dissertation on: - **Determining the Prevalence of Late Childhood and Adolescent Psychopathology in Rural Public Secondary Schools in Busia County- Kenya.** I have selected your child's stream as one of those to participate. In the study students will be asked to complete one self administered questionnaire, YSR, an internationally used instrument measuring various psychopathological problems in the youth aged 11-18 years.

Apart from the highly confidential information from the student, there will be no physical procedures. However some information may be painful to the student but this study will provide a chance to the student to open through the questionnaire. The overall result will help us to understand the prevalence of psychopathology in this group of students, to identify the psychopathology syndromes on which adolescents in this population rate themselves highest, and to find out whether there is a correlation between the self reported psychopathology syndromes and factors such as gender and age in this population. Students that will self identify with any psychopathology will be given information on where they can obtain help. Apart from the benefits to the students, the school and I the researcher, there will be no benefits or any financial incentives for taking part in this study. I will get all necessary official approvals for this study to be done, which I will make available to the school before the study begins.

I therefore request for your permission to allow your child participate in the study but he/she is free to withdraw at any time. I will also explain to the students the nature of the study and request them to sign assent forms and complete the questionnaire. Attached please find the questionnaire that will be given to the students.

Yours Faithfully

Maryanjeline M.A Barasa

Msc. Clinical psychology Student, Department of Psychiatry

University of Nairobi, Tel: 0722 – 526279

Appendix 6: Consent by parent

I.....being a parent of.....in
Secondary / Primary School and having been explained the natures of the study in
English/Kiswahili by Maryanjeline M.A. Barasa P.O. Box 72300-00200 SCQ Nairobi, Tel.
0722526279, as detailed in a write-up, do here by consent to my child participating in the study. I
understand I can withdraw my child from the study any time before the data collection is over.

Signature

Date

Witnessed by

Name

Signature

Date

Appendix 7: FOMU YA MAELEZO YA MZAZI NA DHINI YA MZAZI

Jina langu ni Maryanjeline M.A Barasa, mwanafunzi wa Shahada ya Sayansi ya uzamili katika Saikolojia ya matibabu, idara ya matibabu ya akili, chuo kikuu cha Nairobi. Nimeamua kufanya utafiti wangu kuhusu kiwango cha shida ya kisaikolojia miongoni mwa watoto na vijana chipukizi katika shule za umma vijijini, katika Jimbo la Busia, Maghari mwa Kenya. Nimechagua darasa la mwanao kuwa mojayapo ya kufanyia utafiti. Katika utafiti huu wanafunzi wanahitajika kujijazia wenyewe hojaji moja (1) ambayo ni ya kimataifa inayotumika kama chombo cha kupima viwango mbalimbali vya matatizo ya kisaikolojia miongoni mwa vijana wa umri baina ya miaka 11 hadi 18.

Mbali na ujumbe wa kisiri ambao nitapata kutoka kwa mwanzafunzi, hakutakuwa na aina nyingine ya kuhojiwa wala zoezi lingine la kuhatarisha maisha. Hata hivyo baadhi ya habari au ujumbe unaweza kuleta hisia za kumuudhi mwanafunzi, lakini tena utafiti huu utamwezesha mwanafunzi kupata nafasi ya kujieleza kupitia hojaji hii. Matokeo ya jumla yatawezesha kujua kiwango cha matizo ya kisaikolojia miongoni mwa wanafunzi hawa, kutambua matatizo ya kisaikolojia ambayo vijana chipukizi huona yanawaandama kwa kiasi kikubwa, na uhusiano wa jinsia na umri na matatizo haya. Wale watakapojitambulisha wenyewe na mojayapo ya matatizo haya ya kisaikolojia wakipenda watapewa habari kuhusu wanakoweza kupata usaidizi.

Mbali na wanafunzi, shule yao na mtafiti kunufaika, hakutakuwa na faida ya kifedha au zawadi za aina yoyote ile kwa kushiriki utafiti huu. Nitapata stakabadhi za idhini/ruhusa kamili ya rasmi inayoniruhusu kufanya utafiti huu. Nitazitoa stakabadhi hizo kwa shule kabla nianze utafiti.

Kwa hivyo ninakuomba ruhusa wewe mzazi ili nifanye utafiti wangu kwa mwanao. Una uhuru wa kumwondoa au mwanao ana uhuru wa kujiondoa kwenye utafiti wakati wowote hata kama utafiti utakuwa ungali unaendelea. Nitamweleza mwanafunzi pia kuhusu utafiti huu na nimwombe kuweka sahihi na kujaza hojaji. Nimeweka hojaji hizo pamoja na fomu hii ya ombi la utafiti.

Ni mimi wako mwaminifu.

Maryanjeline M.A Barasa

Mwanafunzi wa sayansi ya uzamili; Katika saikolojia

Idara ya sayansi ya akili, Chuo kikuu cha Nairobi

Nambari ya Simu: 0722 526 279

Appendix 8: IDHINI YA MZAZI

Mimi _____

Nikiwa mzazi wa _____

Katika sekondari/shule ya msingi ya-----

Baada ya kuelezewa kuhusu aina ya utafiti inaofanywa na Maryanjeline M.A Barasa

S.L.P. 72300 – 00200 NAIROBI, nambari ya simu **0722 526 279**, nimekubali mwanangu ashiriki katika utafiti huu. Nimefahamu kuwa nina ruhusa ya kumsimamisha/ kumwondoa mwanangu kabla ya kipindi cha utafiti kukamilika.

Sahihi: _____

Tarehe: _____

Shahidi:

Jina: _____

Sahihi: _____

Tarehe: _____

Please print

YOUTH SELF-REPORT FOR AGES 11-18

Tafadhali chapisha

REPOTI YA KIBINAFSI YA VIJANA WA UMRI 11-18

Please fill out this form to reflect your views, even if other people might not agree. Feel free to print additional comments beside each item and in the spaces provided on pages 2, 3 and 4. **Be sure to answer all items.**

Tafadhali jaza fomu hii ili iweze kuonyesha maoni yako, hata kama watu wengine hawakubaliani na maoni yako. Kuwa huru kuongezea maelezo zaidi katika nafasi zilizoachwa tupu katika kurasa za 2, 3 na 4. **Hakikisha kuwa umejibu maswali yote.**

Your Gender Jinsia yako <input type="checkbox"/> Boy <input type="checkbox"/> Girl Mvulana Msichana		Your Age Umri wako _____		
Today's date Tarehe ya leo Day _____ Month _____ Year _____ Siku Mwezi Mwaka		Your Birthdate Tarehe ya kuzaliwa Day _____ Month _____ Year _____ Siku Mwezi Mwaka		
Form / Class in school Kiwango au Darasa shuleni _____				

Please print. Be sure to answer all items.
yote.

Tafadhali chapisha. Hakikisha umejibu maswali

Below is a list of items that describe youths/children. For each item that describes you now or within the past 6 months, please circle **2** if the item is **very true or often true** of you. Circle **1** if the item is **somewhat or sometimes true** of you. If the item is **not true** of

you, circle **0**. *Chini kuna orodha ya vitu vinavyo eleza juu ya vijana au watoto. Kwa kila kitu kinacho eleze juu yako sasa au katika miezi sita iliyopita, tafadhali viringa nambari 2 kama kuhusiana nawe ni kweli kabisa au kweli kila mara. Viringa 1 kama kuhusiana nawe, ni kweli kwa kiwango fulani au wakati mwingine. Kama jambo hilo si kweli kukuhusu, viringa sifuri 0.*

0 Not true			1 Somewhat or Sometimes true			2 Very true or often true		
<i>Siyo ukweli</i>			<i>Ukweli kwa kiwango fulani</i>			<i>Ukweli kabisa au ukweli kila mara</i>		
0	1	2	1. I act too young for my age <i>Ninatenda vitendo vilivyo chini ya umri wangu</i>	0	1	2	22. I disobey my parents <i>Mimi si mtiifu kwa wazazi</i>	
0	1	2	2. I drink alcohol without my parents' approval (describe) <i>Ninakunywa pombe bila idhini ya wazazi wangu (eleza): _____</i>	0	1	2	23. I disobey at school <i>Mimi si mtiifu shuleni</i>	
0	1	2	3. I argue a lot <i>Ninabishana sana</i>	0	1	2	24. I don't eat as well as I should <i>Mimi sili vizuri ninavyostahili</i>	
0	1	2	4. I fail to finish things I start <i>Ninakosa kumaliza kazi ninazoanza</i>	0	1	2	25. I don't get along with other children <i>Mimi sisikizani na watoto wengine</i>	
0	1	2	5. There is very little that I enjoy <i>Kuna vitu/mambo machache ninayofurahia / ninavyofurahia</i>	0	1	2	26. I don't feel guilty after doing something I shouldn't <i>Sina majuto baada ya kufanya makosa (sioni haya ninapofanya makosa)</i>	
0	1	2	6. I like animals <i>Mimi ninapenda wanyama</i>	0	1	2	27. I am jealous of others <i>Ninawaonea wivu watu wengine</i>	
0	1	2	7. I brag <i>Ninajiringa au ninajigamba</i>	0	1	2	28. I break rules at home, school, or elsewhere <i>Sifuati sheria/Kanuni za nyumbani / shuleni au kwingine</i>	

0 1 2 8. I have trouble concentrating or paying attention
Nina shida/taabu kuwa makini kwa muda mrefu

0 1 2 9. I can't get my mind off certain thoughts (describe):
*Siwezi kuyaondoa mawazo fulani kutoka kwenye
fikira zangu (eleza):*

0 1 2 10. I have trouble sitting still
Nina shida kukaa na kutulia

0 1 2 11. I am too dependent on adults
Ninategemea watu wazima zaidi

0 1 2 12. I feel lonely
Ninahisi upweke

0 1 2 13. I feel confused
Ninachanganyikiwa

0 1 2 14. I cry a lot
Ninalia sana

0 1 2 15. I am honest
Mimi ni mwaminifu

0 1 2 16. I am mean to others
Mimi ni mchoyo kwa wengine

0 1 2 17. I daydream a lot
*Mimi ninazama mawazoni sana mchana / Mimi
huota mchana sana*

0 1 2 29. I am afraid of certain animals, situations, or
places, other than school (describe):
*Ninaogopa wanyama wengine, hali au mahali pengine
ambapo si shule (eleza)*_____

0 1 2 30. I am afraid of going to school
Ninaogopa kwenda shule

0 1 2 31. I am afraid I might think or do something bad
*Ninahofia kuwa ninaweza kufikiria au kufanya
kitu kibaya*

0 1 2 32. I feel that I have to be perfect
Ninahisi ni lazima niwe mkamilifu (bila makosa)

0 1 2 33. I feel that no one loves me
Ninahisi/ninaona kuwa hakuna mtu ananipenda

0 1 2 34. I feel that others are out to get me
Ninahisi /ninaona kuwa watu wananitafuta

0 1 2 35. I feel worthless or inferior
Ninajihisi duni na asiye na thamani

0 1 2 36. I accidentally get hurt a lot
Mara kwa mara, ninajumiza bila kutarajia

0 1 2 37. I get in many fights
Ninajipata katika vita vingi

0 1 2 38. I get teased a lot
Mimi ninataniwa sana

0 1 2 18. I deliberately (intentionally) try to hurt or kill myself

Kimakusudi, ninajaribu kujiumiza au kujiua

0 1 2 19. I try to get a lot of attention

Wakati mwingi ninajaribu kushughulikiwa

/kuhudumiwa

0 1 2 20. I destroy my own things

Ninaharibu vitu vyangu

0 1 2 21. I destroy things belonging to others

Ninaharibu vitu vya wengine

0 1 2 39. I associate with children who get in trouble

Mimi ninajihusisha na watoto wanaopatikana matatani

0 1 2 40. I hear sounds or voices that other people think aren't

there (describe):

Mimi ninasikia sauti au kelele ambazo wengine

hufikiri hazipo (eleza) _____

0 1 2 41. I act without thinking

Ninatenda au kufanya mambo au vitu bila kufikiria

0 1 2 42. I would rather be alone than with others

Ninapendelea kuwa pekee yangu kuliko kuwa na wengine wengine

Please print. Be sure to answer all items.
yote.

Tafadhali chapisha. Hakikisha umejibu maswali

0 Not true

1 Somewhat or Sometimes true

2 Very true or often true

Siyo ukweli

Ukweli kwa kiwango fulani

Ukweli kabisa au ukweli kila mara

0 1 2 43. I lie or cheat

Mimi ninadanganya au ninasema uongo

0 1 2 44. I bite my finger nails

Mimi ninajuma kucha za vidole vya mikono

0 1 2 45. I am nervous or tense

Nina wasiwasi

0 1 2 46. Parts of my body twitch (describe)

Sehemu za mwili wangu zinatetemeka tetemeka bila sababu (eleza) _____

0 1 2 58. I pick my skin or other parts of my body (describe):

Ninajivuta ngozi au sehemu zingine za mwili (eleza):

0 1 2 59. I can be friendly

Ni mwepesi wa kufanya urafiki

0 1 2 60. I like to try new things

Ninapenda kujaribu vitu vipya

0 1 2 61. My school work is poor

Kazi yangu ya shule ni duni

- 0 1 2 47. I have nightmares
Ninaota ndoto za kuogofya
- 0 1 2 48. I am not liked by other children
Sipendwi na watoto wengine
- 0 1 2 49. I can do certain things better than most children
Ninaweza kufanya vitu vingine vizuri kuliko watoto wengi
- 0 1 2 50. I am too fearful or anxious
Nina hofu na uoga sana au wasiwasi
- 0 1 2 51. I feel dizzy or lightheaded
Ninajihisi kizunguzungu au kichwa chepesi
- 0 1 2 52. I feel too guilty
Ninahisi majuto sana
- 0 1 2 53. I eat too much
Ninakula kupita kiasi
- 0 1 2 54. I feel tired without reason
Ninajihisi mchovu bila sababu
- 0 1 2 55. I am overweight
Mimi ni mnene mno / Nina uzani mkubwa mno
56. Physical problems without known medical cause:
Nina matatizo ya kimwili bila sababu inayojulikana kiafya:
- 0 1 2 62. I am poorly coordinated or clumsy
Ninafanya mambo fwaaa
- 0 1 2 63. I would rather be with older children than children my own age
Ningelipendelea kuwa na watoto wa umri mkubwa kuliko wale wa rika langu
- 0 1 2 64. I would rather be with younger children than children my own age
Ningelipendelea kuwa na watoto wa umri mdogo kuliko wale wa rika langu
- 0 1 2 65. I refuse to talk
Ninakataa kuzungumza
- 0 1 2 66. I repeat certain actions over and over (describe)
Ninarudia vitendo fulani mara kwa mara (eleza):

- 0 1 2 67. I run away from home
Hutoroka nyumbani
- 0 1 2 68. I scream a lot
Hupiga mayowe sana
- 0 1 2 69. I am secretive
Ni msiri
- 0 1 2 70. I see things that other people think aren't there (describe): *Ninaona vitu visivyoonekana nawengine au visivyokuwepo (eleza):* _____
- 0 1 2 71. I am self-conscious or easily embarrassed
Ninaaibika kwa urahisi

- 0 1 2 a) Aches or pains (not stomach or headaches)
Maumivu au mavune (lakini sio kuumwa na tumbo au kichwa)
- 0 1 2 b) Headaches
Huumwa kichwa
- 0 1 2 c) Nausea, (feel like vomiting), feel sick
Ninajihisi mgonjwa au kuhisi kichefuchefu
- 0 1 2 d) Eye problems (but not if corrected by glasses) (describe): *Matatizo ya macho (lakini si iliyotibiwa kwa kuvaa miwani) (eleza): _____*
- 0 1 2 e) Rashes or other skin problems
Nina vipele au matatizo mengine ya ngozi
- 0 1 2 f) Stomachaches
Huumwa tumbo
- 0 1 2 g) Vomiting
Hutapika
- 0 1 2 h) Other (describe):
Mengineo (eleza) _____
- 0 1 2 57. I physically attack people
Ninawashambulia watu kwa nguvu

- 0 1 2 72. I set fires
Huwasha mioto
- 0 1 2 73. I can work well with my hands
Ninaweza kufanya kazi kwa mikono yangu vyema
- 0 1 2 74. I do things like a clown to make people laugh
Ninafanya vituko vituko kuchekesha watu
- 0 1 2 75. I am too shy
Mimi ni mwenye haya kupita kiasi
- 0 1 2 76. I sleep less than most children
Kiwango changu cha kulala ni cha chini kuliko watoto wengi
- 0 1 2 77. I sleep more than most children during day or night
Kiwango changu cha kulala mchana au usiku ni cha juu kuliko watoto wengi
- 0 1 2 78. I am inattentive or easily distracted
Ni mwepesi wa kutaabishwa na mambo kwa urahisi
- 0 1 2 79. I have problems with my pronunciation and talking (describe): *Nina matatizo ya matamushi na kuongea (eleza): _____*
- 0 1 2 80. I defend my rights
Ninatetea haki zangu

Please print. Be sure to answer all items.
yote.

Tafadhali chapisha. Hakikisha umejibu maswali

0 Not true			1 Somewhat or Sometimes true			2 Very true or often true		
<i>Siyo ukweli</i>			<i>Ukweli kwa kiwango fulani</i>			<i>Ukweli kabisa au ukweli kila mara</i>		
0	1	2	81. I steal at home <i>Huiba nyumbani</i>	0	1	2	97. I threaten to hurt people <i>Ninatishia kuwaumiza watu</i>	
0	1	2	82. I steal from places other than home <i>Huiba mahali popote isipokuwa nyumbani</i>	0	1	2	98. I like to help others <i>Ninapenda kuwasaidia wengine</i>	
0	1	2	83. I keep too many things I don't need (describe) <i>Ninahifadhi vitu vingi nisivyovihitaji (eleza)</i> _____	0	1	2	99. I smoke, chew, or sniff tobacco <i>Ninavuta, ninatafuna au kunusa tumbaku</i>	
0	1	2	84. I do things other people think are strange (describe): <i>Ninafanya vitendo ambavyo watu wengine huona siyo vya kawaida (eleza):</i> _____	0	1	2	100. I have trouble sleeping (describe): <i>Ninashida kulala (eleza):</i> _____	
0	1	2	85. I have thoughts that other people would think are strange (describe): <i>Nina mawazo ambayo wengine hufikiri siyakawaida (eleza) _____</i>	0	1	2	101. I sneak out of class or I skip school <i>Hutoroka darasani au kutokuja shuleni</i>	
0	1	2	86. I am stubborn <i>Mimi ni mwenye kichwa ngumu</i>	0	1	2	102. I don't have much energy <i>Sina nguvu nyingi</i>	
0	1	2	87. My moods or feelings change suddenly <i>Hadi yangu au hisia zangu hubadilika kighafila</i>	0	1	2	103. I am unhappy, sad, or depressed <i>Sina furaha au nina huzuni</i>	
0	1	2	88. I enjoy being with people <i>Ninafurahia kuwa na watu</i>	0	1	2	104. I am louder than other children <i>Nina sauti ya juu kushinda watoto wengine</i>	

0 1 2 89. I am suspicious

Ninashuku

0 1 2 90. I swear or use dirty language

Ninaapa au ninatumia lugha chafu au ya matusi

0 1 2 91. I think about killing myself

Ninafikiria kujiua

0 1 2 92. I like to make others laugh

Ninapenda kuwachekesha watu

0 1 2 93. I talk too much

Ninaongea au kusungumuza sana

0 1 2 94. I tease others a lot

Ninachokoza, ninasumbua au ninatania watu sana

0 1 2 95. I have a hot temper / I get angry quickly

Ninapandwa na hasira haraka haraka

0 1 2 96. I think about sex too much

Ninafikiria kuhusu ngono kupita kiasi

0 1 2 105. I use drugs for nonmedical purposes (don't include

alcohol or tobacco) (describe):

Ninatumia dawa sisizo za tiba (usijumuishe pombe

au tumbaku) (eleza)_____

0 1 2 106. I like to be fair to others

Ninapenda kutenda haki kwa wote au kutopendele

0 1 2 107. I enjoy a good joke

Ninafurahia mzaha

0 1 2 108. I like to take life easy

Ninapenda kuchukulia maisha kiurahisi

0 1 2 109. I try to help others when I can

Ninajaribu kuwasaidia wengine nikiweza

0 1 2 110. I wish I could be of the opposite sex

Natamani ningekua kinyume cha jinsia niliyo nayo

0 1 2 111. I keep from getting involved with others

Ninajizuia kushirikiana na watu wengine

0 1 2 112. I worry a lot

Ninahangaika sana kimawazo

Please write other things which describe your feelings, behavior, or your interests:

Tafadhali andika kitu kingine ambacho kinaweza kuelezea hisia, tabia au uraibu wako

The University of Vermont

ASEBA

Research Center for Children, Youth & Families, Inc.

A Non-Profit Corporation

1 South Prospect Street, St Joseph's Wing (Room #3207), Burlington, VT 05401

Telephone: (802)656-5130 / Fax: (802)656-5131

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Accepted and Agreed to:

Accepted and Agreed to:

LICENSOR:

LICENSEE:

Thomas M. Achenbach, Ph.D.

Maryanjeline M.A. Barasa

Signature:



Signature:



Title: Professor

Print name:

MARYANJELENE M.A. BARASA

Date:

14 April 2011

Title:

STUDENT CLINICAL PSYCHOLOGY

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KENYATTA NATIONAL HOSPITAL
Hospital Rd. along, Ngong Rd.
P.O. Box 20723, Nairobi.
Tel: 726300-9
Fax: 725272
Telegrams: MEDSUP", Nairobi.
Email: KNHplan@Ken.Healthnet.org
13th April 2011

Maryanjeline M. A. Baraza
Department of Psychiatry
School of Pharmacy
University of Nairobi

Dear Barasa,

RESEARCH PROPOSAL: "DETERMINING THE PREVALENCE OF LATE CHILDHOOD AND ADOLESCENT PSYCHOPATHOLOGY IN RURAL PUBLIC SECONDARY AND PRIMARY SCHOOLS IN BUSIA COUNTY – WESTERN KENYA" P120/4/2011

This is to inform you that the KNH/UON-Ethics & Research Committee has reviewed and **approved** your above revised research proposal for the period 13th April 2011 – 12th April 2012.

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given. Clearance for export of biological specimens must also be obtained from KNH/UON-Ethics & Research Committee for each batch.

On behalf of the Committee, I wish you a fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of the data base that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely,

PROF A N GUANTAI
SECRETARY, KNH/UON-ERC

c.c. The Deputy Director CS, KNH
The HOD, Records, KNH
Dean, School of Medicine, UON
Supervisors: Prof. David Musyimi Ndeti, Dept of Psychiatry, UON
Dr. Lincoln I. Khasakhala Dept of Psychiatry, UON

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THIS IS TO CERTIFY THAT:

Prof./Dr./Mr./Mrs./Miss/Institution
MARYANJELINE M. A. BARASA

UNIVERSITY OF NAIROBI
of (Address) **P. O. BOX 19676 - 00202**

KENYATTA NATIONAL HOSPITAL
has been permitted to conduct research in

BUSIA Location
WESTERN District
Province

on the topic: **Determining the prevalence of
late childhood & adolescent psychopathology
in rural public secondary & primary schools
in Busia County Western Kenya.**

for a period ending **31st August, 2012**

Research Permit No. **NCST/RR/12/1/SS-011/466**

Date of issue **22nd April 2011**

Fee received **KES1,000**



MARYANJELINE M. A. BARASA
Applicant's
Signature

[Signature]
Secretary

National Council for
Science and Technology

OFFICE OF THE PRESIDENT

Telegrams: "DISTRICTER"BUSIA (K)
Email: dcbusia@gmail.com
Telephone: 055 - 22598
Fax No: 055 - 22231
When replying please quote
REF. NO ADM 15/4 VOL. II/(85)
and Date



DISTRICT COMMISSIONER'S OFFICE
BUSIA DISTRICT
P.O. BOX 14
BUSIA (K)

Monday, May 09, 2011

Maryanjeline M. A. Barasa
University of Nairobi
P.O. Box 19676 - 00202
KNH, NAIROBI

RE: RESEARCH AUTHORIZATION

Your letter NO. NCST/RRI/12/1/SS-011/466/5 dated 22nd April, 20011 on the above subject matter refers.

This is to inform you therefore, that you have been granted the authority to undertake your research in Busia District for a period ending 31st August, 2011.

Thank you.

DISTRICT COMMISSIONER
BUSIA (K).

VALENTINE CHERONO
For: DISTRICT COMMISSIONER
BUSIA (K)

Copies to:

District Officer
MUNICIPALITY DIVISION

District Officer
MATAYOS DIVISION.

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REPUBLIC OF KENYA



NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

Telegrams: "SCIENCETECH", Nairobi
Telephone: 254-020-241349, 2213102
254-020-310571, 2213123.
Fax: 254-020-2213215, 318245, 318249
When replying please quote

P.O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Our Ref:

Date:

NCST/RRI/12/1/SS-011/466/5

22nd April, 2011

Maryanjeline M. A. Barasa
University of Nairobi
P. O. Box 19676 - 00202
KNH, NAIROBI

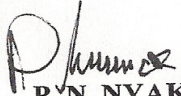
APPROVED

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on **"Determining the prevalence of late childhood & adolescent psychopathology in rural public secondary & primary schools in Busia County, Western Kenya"** I am pleased to inform you that you have been authorized to undertake research in **Busia District** for a period ending **31st August, 2011**.

You are advised to report to **the District Commissioner and the District Education Officer, Busia District** before embarking on the research project.

On completion of the research, you are expected to submit **one hard copy and one soft copy** of the research report/thesis to our office.


P.N. NYAKUNDI
FOR: SECRETARY/CEO

Copy to:
The District Commissioner
Busia District

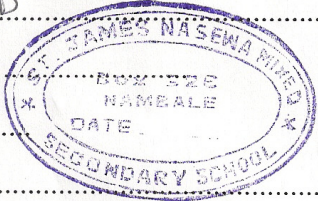
The District Education Officer
Busia District

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Appendix 2: Consent by Principal:

I DOUGLAS MUSA NAMATI Being head of ST. JAMES NASEWA SEC. SCHOOL Secondary/ Primary school and having been explained the nature of the study by Maryanjeline M.A Barasa, P.O. Box 72300 – 00200 Nairobi, Tel: 0722 – 526279, as detailed in a write – up, do hereby give consent for the students in my school to participate in the study. I understand I can withdraw this consent any time before the data collection is over.

Name: NAMATI M. D.

Signature: [Handwritten Signature] School Stamp: 

Date: 19/5/2011

Witnessed by:

Name: Jane Ngare

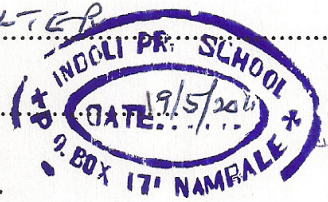
Signature: [Handwritten Signature]

Date: 19/5/2011

Appendix 2: Consent by Principal:

I OWADE M. WALTER Being head of
INDOLI PRIMARY ~~Secondary~~ Primary school and having
been explained the nature of the study by maryanjeline M.A Barasa, P.O. Box 72300 – 00200
Nairobi, Tel: 0722 – 526279, as detailed in a write – up, do here by give consent for the students
in my school to participate in the study. I understand I can withdraw this consent any time before
the data collection is over.

Name: OWADE M. WALTER

Signature [Handwritten Signature] School Stamp: 

Date: 19.5.2011

Witnessed by: [Signature]

Name: CONSOLATA ANNA D. DUDU

Signature: [Handwritten Signature]

Date: 19/5/2011