

**INFLUENCE OF ADOLESCENCE DEVELOPMENTAL CHANGES ON ACADEMIC
PERFORMANCE OF STUDENTS IN PUBLIC SECONDARY SCHOOLS IN NAKURU
MUNICIPALITY, NAKURU COUNTY, KENYA**

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Requirements for the Award of the Degree of Master of Education in Guidance
and Counselling of Egerton University**

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DECLARATION AND RECOMMENDATION

Declaration

This Project Report is my original work and has not been presented for an award of a diploma or degree in this or any other university.

Sign

Date

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EM16/2874/10

Recommendation

This Project Report has been submitted for examination with my approval as university supervisor.

Sign

Date

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DEDICATION

To God the father, for His unfailing strength and guidance. To my husband David, whose understanding, love, commitment and encouragement have continued to be a source of hope and determination. To my children Peter, Edwin, Timothy and Hope for their inspiration and support to hold on. In all this accomplishment, may the name of the Lord Jesus Christ be praised.

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ABSTRACT

Adolescence has for a long time been considered a period when the individual is exposed to heightened risk. Harlock (2006), suggests that our understanding of adolescent behavior, should move beyond isolated emotional and physical studies into a perspective that brings more understanding to the human perception. The academic performance of adolescent students in Kenya has been deteriorating. The purpose of this study was to investigate whether adolescence developmental changes (emotions, social behaviour and physical growth) influence the student's academic performance in public secondary schools of Nakuru municipality. The study adopted the ex-post facto research design. Stratified random sampling method was used, where form three students in 4 schools formed the strata and a sample of 375 students were randomly selected. Fifty one (51) teacher counsellors were also purposively selected for this study. A 25-item survey instrument was used where the students were asked to rate each item on a strongly disagree (1) to strongly agree (5) Likert scale. In order to ascertain the instrument content validity, each item in the questionnaires and interview schedules was discussed with the lecturers and supervisors. The consistency of the questionnaires and interview schedules was piloted tested in Molo in Nakuru County. The data was analyzed using descriptive and inferential statistics with the aid of the Statistical Package for the Social Science (SPSS). The findings of the study revealed that the academic performance of the secondary students in the Nakuru municipality averaged 7.8 (on a scale of 1 to 12). The majority of the students (77.1 %) were performing below the average score. The male students had significant ($p \leq 0.05$) higher mean scores than the female students. It was further demonstrated that academic performance of adolescent students was significantly ($p \leq 0.05$) influenced negatively by their emotional behaviour ($\beta = -0.776$), social behaviour ($\beta = -0.661$) and physical growth ($\beta = -0.156$). The study concluded that academic performance was negatively influenced by emotional, social behaviour, and physical changes during the adolescent development stage. It is recommended that student counselling services during the adolescent stage is important to minimize the negative impact on their academic performance. It is anticipated that the study may help teacher counsellors, school administrators and policy makers in the Ministry of Education Science and Technology improve students' academic performance develop guidance and counselling programmes through which students may be helped to go through adolescence smoothly and be able to achieve their academic goals.

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LIST OF ABBREVIATIONS AND ACRONYMS

APA	American Psychological Association
CRC	Convention on the Rights of the Child
KCSE	Kenya Certificate of Secondary Education
MOEST	Ministry of Education Science and Technology
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Renowned psychologists including Freud, Erikson and Elkind each have a position on the nature and exploitation of adolescence. For all these psychologists an understanding of adolescent emotions, physical changes and behavior can provide an ideal foundation for an understanding of human experience (Masese, A. Nasongo, W.J. & Ngeso, L. (2012). An understanding of adolescence per se allows us to venture into the understanding of “beyond normality” (Murphey, D, Barry, M. & Vaughn, B., 2013).

According to Harlock (2006), greater social participation by the adolescents leads to greater social competence. With physical development, an adolescent may not necessarily become socially mature. Therefore his social behaviour should be matched from childhood and corrected when necessary. The adolescent goes through a gradual development process. Positive social participation can only be guided by parents. A child who does not learn proper social behaviour grows selfish during adolescence. The adolescent may indulge in day dreams and may not be aware of the realities of life (Somerset, A. 2009). Emotionally, adolescents are insecure and afraid, so they want to stay close to their parents who provide a sense of safety. On the other hand, most of them spend a lot of time with peers. This emotional deprivation could lead to negative behaviour like truancy which may have adverse effect on their academic performance.

Adolescent’s social and emotional behavior have been issues of concern to many scholars for a long time. The study focused on students from Nakuru municipality. Nakuru hosts a variety of high schools, both boarding and primary each diverse in terms of students admitted as well as performance. As a growing cosmopolitan town, Nakuru has drawn much interest from education experts as well as investors. The concern however has been with regard to decreasing performance of students in the municipality. Kasomo (2006) found that in the early 1990’s Nakuru was recognized as one of the highest performing municipalities in the final KCSE examinations.

Santrock (2010) found that a substantial portion of Kenya’s adolescents are barely succeeding academically. More than 30% drop out of school before completing school. The government has

indicated increasing concern over the increasing numbers of adolescents consuming alcohol and drugs on a regular basis. Majority of these problems begin in the early stages of adolescent years. Edberg (2009) suggests that the early adolescent years mark the beginning of a downward spiral that leads to academic failure and school dropout. Barnett (2012) questions whether there is something unique about this developmental stage, which puts individuals at risk with regard to behavior and performance.

During the month of July 2008 over 300 secondary schools in Kenya went on strike burning down their schools and in some cases leading to loss of life as was the case of Upper Hill school in Nairobi (Ngare, 2008). According to Sadker and Sadker (2000) adolescents who feel pushed beyond their abilities and alienated from family and community get involved in anti-social behaviour to draw attention. They attribute this to the adolescents' sense of uniqueness that no one cares or faces their kind of problems. Many of the students who were interviewed after the strikes cited poor communication between them and adults, examination leakages among others (Mwajefa, 2008). Secondary school students in Kenyan schools abuse drugs and alcohol (Masese, *et al.* 2012; Ngesu, *et al.*, 2008). A high degree of peer orientation is sometimes associated with antisocial behaviour such as delinquency (Mwale, 2008).

In Nakuru Municipality just like in other urban areas, adolescents spend most of their time with electronic devices such as computers and televisions either at home or in the cyber cafes in town. This may have led to poor social skills since they do not adequately socialize with people. They have little or no time for their school work. Thus, there is a high probability that the social competence of modern day adolescents may be poorer than those of earlier generation (Andrews, 2000). Inability in getting along with teachers and administrators, difficulty adjusting in the school program, classroom misconduct, poor examination grades and lack of school success are associated with delinquency (Steinbery, 2008). Poor academic performance of adolescents in secondary schools in Nakuru County could be correlated with delinquency. Majority of students in public secondary schools in Nakuru County are from low social and economic backgrounds. A substantial number dwell in the slums. Hence they might be exposed to sexual behaviour early. This could influence their social and emotional behaviour negatively leading to poor academic performance.

1.2 Statement of the Problem

There has been growing concern with regard to adolescence as a time of risk. Globally, statistics show that there is an increasing rate of failure, poor performance and school dropout rate. A substantial portion of the adolescents' performance continues to be marred by increasing rate of alcohol dependence, drug abuse and juvenile delinquency. Majority of the studies show that decline in performance begins in early adolescent years. What is unclear however, is whether there is something unique about adolescence in itself which posits the individual for potential failure, or if such failures are as a result of environmental changes. This study looked closely to this question as it specifically pertains to the academic life of students in public high schools in Nakuru municipality.

1.3. Purpose of the Study

This study sought to determine the influence of adolescence development on students' academic performance in public secondary schools in Nakuru Municipality.

1.4. Objectives of the Study

The specific objectives of the study were:

- (i) To establish academic performance of adolescents in public secondary schools in Nakuru Municipality
- (ii) To determine the influence of emotional behavior of adolescents on academic performance in public secondary schools in Nakuru Municipality.
- (iii) To investigate the influence of social behavior of adolescents on academic performance in public secondary schools in Nakuru Municipality.
- (iv) To determine the influence of physical growth of adolescents on academic performance in public secondary schools in Nakuru Municipality.
- (v) To determine the role of guidance and counseling in facilitating the adolescents' academic performance in public secondary schools in Nakuru Municipality.

1.5. Hypothesis of the Study

The study was guided by the following hypotheses:

- (i) There is no statistically significant influence of emotional behavior on academic performance of adolescents in public secondary schools in Nakuru municipality.
- (ii) There is no statistically significant influence of social behavior on academic performance of adolescents in public secondary schools in Nakuru municipality.
- (iii) There is no statistically significant influence of physical growth of adolescents on academic performance in public secondary schools in Nakuru municipality.
- (iv) There is no statistically significant role played by guidance and counselling in enhancing adolescents academic performance in public secondary schools in Nakuru municipality.

1.6. Significance of the Study

The findings of this study will benefit school administration and teacher counsellors. It is hoped that they may see the need to help those students whose academic performance has been affected by emotional behaviour, social behavior and physical growth. The teacher counselor may work on communication avenues where the students will freely share their experience in coping with physical and emotional changes in their bodies. The study may also assist teachers in helping students develop positive perception of their studies. It is anticipated that study findings may help improve on the students' academic performance. The Ministry of Science and Technology (MOEST, 2005) could use the findings of this study to modify the syllabus to equip the adolescent students with skills to help them manage social and emotional changes of adolescence. Finally, the findings of the study may help guardians and parents in guiding their children effectively as they go through adolescence.

1.7. Scope of the Study

The study focused on the influence of adolescence development on the students' academic performance in public secondary schools in Nakuru County. For the purpose of this study, the research focused on form three students in 16 public secondary schools in Nakuru Municipality, most of whom are in mid adolescence period of development and are likely to give a clear picture of adolescent physiological and emotional changes. The study variables included

emotional behaviour, social behaviour, physical growth of the students and role of guidance and counseling.

1.8. Limitations of the Study

- i) The study focus was limited to a sampled number of form three students. Adolescence began as early as primary school all the way to high school. However, due to the large number of students in public schools, only form three students sampled for this study were included. This limits generalization to students in other forms, as their characteristics and behavior may differ from each other.
- ii) Much of the information sought by the researcher could be construed as personal. Students were often unwilling to share information especially where their behavior was being analyzed. The researcher endeavored to ensure the students that all information was considered confidential and used for purposes of the study only.

1.9 Assumptions of the Study

The study assumed that;

- i) The respondents would cooperate and provide honest responses to the questions raised by the researcher.
- ii) Adolescence development challenges had influence on adolescents' academic performance in public secondary schools in Nakuru Municipality.
- iii) All adolescents in public secondary schools in Nakuru Municipality undertake the same educational curriculum.

1.10 Definition of Terms

This section outlines the operational definition of various terms as used in the study.

Academic performance: refers to a student's performance in grades on standardized tests (Anand *et al.*2004). Overall achievement in subjects taught in school. In this study academic performance refers to grades achieved at the end of the first term form three examination.

Adolescence: Period of life from puberty to adulthood (roughly ages 12–20) characterized by marked physiological changes, development of sexual feelings, efforts toward the construction of identity, and a progression from concrete to abstract thought. (Webster, 2013). In this study the adolescent is a high school student aged between 13-20 years.

Adolescent: A person aged between 10-19 years (United Nations Children's Fund (UNICEF), 2012). In this study the adolescent is a high school student aged between 13-19 years.

Cognitive development: refers to the ability of the brain to begin processing more abstract thoughts (Barnett, 2012). In this study it refers to the time the adolescents' brains start processing more abstract thoughts especially focused towards self-identity.

Counseling: is the skilled and principled use of relationship to facilitate self- knowledge, emotional acceptance and growth and the optimal development of personal resources (Gladding, 2004). In this study, counselling refers to a helping relationship between a teacher counsellor and a student that provide skills to adolescent students that enable them manage their adolescence.

Delinquency: refers to behavior especially by young people that is not in accordance with accepted social standards or with the law (Longman online Dictionary of contemporary English, 2013). In this study, it refers to the tendency of having serious anti-social behaviour in young people.

Emotional behaviour: refers to markedly aroused or agitated in feeling or sensibilities (Webster, 2013). In this study, it refers to an adolescent behaviour that is controlled by emotions. Pleasant emotions make a student concentrate in class. Emotions like fear or anger lead to poor concentration and consequently low grades in examinations.

Influence: The capacity or power of persons or things to be a compelling force on or produce effects on the action, behavior or opinions of others (Dictionary com, 2014). In this study the same meaning will be adopted

Intellectual skill development involves the acquisition of concepts, rules, routines, and symbol systems (Westwood, 2004).

Intellectual: This is the ability to understand things and think intelligently (Longman online dictionary of contemporary English, 2013).

Physical development of adolescent: refers to growth spurt and sexual maturation that occurs at adolescence stage of human development (American Psychological Association, 2002). In this study, it refers to rapid physical growth accompanied by secondary sexual characteristics.

Psychosocial development: refers to psychological development in social context (Khurshid & Aurangzeb, 2012). In this study, it refers to interrelationships that students create among themselves

Public secondary schools: refer to secondary schools that are co-funded by the government and communities (Onsomu *et al.*, 2004). They are also referred to as Government secondary schools. This study adopts the same meaning.

Social development: refers to the progress in interaction of the individual and the group/ members of society (Webster, 2013). In this study, it refers to a tendency of students to form positive and supportive relationships with others.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

In this chapter, a summary of related literature on adolescents' physiological, social and emotional behaviour changes has been presented. The main topics explored are; meaning of adolescence, adolescent physiological development changes, emotional behaviour, social behaviour, academic performance, guidance and counseling and finally theoretical and conceptual framework of the study.

2.2. Adolescence Stages of Development

According to Kasomo (2006), adolescence is a stage in human life when rapid changes take place. He adds that an individual grows physically, mentally and socially while his personality develops new dimensions. Santrock (2010) asserts that adolescence is the period of transition from childhood to adulthood where young people go through biological, cognitive and psychological changes. Adolescence is accompanied by dramatic physical, cognitive, social, and emotional changes that present both opportunities and challenges for adolescents, families, health professionals, educators, and communities (Cohen *et al.*, 2012). Socially the young adults develop a sense of identity and self-awareness and they start spending more time with their peers. Kaplan (1986) explains that the major purpose of adolescence experiences is to prepare children for adult roles.

Some of the most significant parts of puberty development involve distinctive physiological changes in individual's height, weight, body composition. These changes are largely influenced by hormonal activity. The biological cognitive and socio-emotional changes of adolescence range from the development of sexual functions to abstract thinking processes to independence (Anand *et al.*, 2004). Early adolescence begins from 10 to 13 years for most adolescents followed by middle adolescence from 13 to 18 years and lastly late adolescence from 18 to 21 years of age (Cohen, 2012). Melgosa (2001) asserts that girls and boys become different when they reach adolescence. Their responsibilities and privileges are different from one stage to another. The adolescent's thoughts, ideas and concepts develop at future life. Kasomo (2006) explains that the changes are revolutionary in experiences and character formation. An

adolescent does not give up all the undesirable habits and activities (Khurshid and Ansari, 2012). The adolescent wants to give up many old things and habits of childhood and acquire new ones. His mental facilities become more alert and gradually he develops a new character and personality. If these are not properly channeled, the adolescent academic performance may greatly be affected.

2.2.1. Emotional Development in Adolescence

Santrock (2010) defines emotion as a feeling or effect that occurs when a person is in a state or on interaction that is important to the individual. He goes on to say that emotion is characterized by behaviour that expresses the pleasantness or unpleasantness of the state the individual is in. Negative emotions such as sadness are linked with low self-esteem whereas positive emotions such as joy are associated to high self-esteem. Emotional development during adolescence involves establishing a realistic and coherent sense of identity in the context of relating to others and learning to cope with stress and manage emotions (Santrock, 2001). Leary (2007) explains that emotional behaviors are a result of strong feelings that disturb the mind and excite an individual to act immediately. The same emotions guide and direct our behaviour and many times they seem to dominate in such a way that we behave the way they want us to. Sadker and Sadker (2000) assert that an adolescent views the world as a stage in which they are the principal actors and the rest of the world is the audience. This accounts for adolescents self consciousness and self preoccupation.

Since they are emotionally charged, the adolescents tend to view themselves as somehow unique and heroic. Wood and Greenwood (2002) in support of this view explain that early teenage years are marked by adolescent egocentrism. They imagine that everybody is concerned with the way they look and the impression they make. This is an imaginary audience of admirers and critics that adolescents make up. They cannot bring to themselves the idea that anyone has ever felt deeply as they feel or has ever loved as they do. This compelling sense of personal uniqueness may cause adolescents to believe that they are somehow protected from the misfortunes that befall others. These could include sexually transmitted diseases, unwanted pregnancies, accidents or sudden death. Belief in this uniqueness may account for much of the risk taking

during adolescence. A Study by Barnett (2012) concluded that many identity issues that begin during adolescence determine the paths an adolescent may take including future college, vocational or career choices.

According to Santrock (2005) adolescence is a time when emotions highs and lows occur more frequently. Adolescents are reported to have extreme emotions associated with increased loneliness, social isolation, disorganized and suicidal thought processes and unusual beliefs that could lead to heavy use of drugs. This significantly interferes with their social and emotional adjustments. However, there are those adolescents who abuse drugs so as to be accepted by peers. Adolescents might sulk a lot when unable to express their feelings with or without provocation. They could even blow up at their parents or siblings, a response that might reflect the defense mechanisms of displacing their feeling onto another person. Leary, M.R (2007) found out that although most students were well adjusted about 20% developed emotional problems. Some had mood swings, often felt lonely, embarrassed and self conscious. Emotional swings especially in adolescents girls is a reflection of serious problems such as depression. Adolescents have to cope with a new body, and with influences that these changes have on their mood, behaviors and relationships (Bosson *et al.*, 2012).

Santrock (2010) explains that suicide attempts by adolescents have a long history of stress and personal problem originating from childhood issues such as conflict with parents, difficulties in school and increased loneliness during adolescence. He adds that although increased cognitive abilities and awareness of adolescents prepare them to cope more effectively with stress and emotional fluctuations, many adolescents do not effectively manage their emotions. As a result, they may become prone to depression, anger and poor emotional regulation when they fail to cope with these problems. Many adolescents rebel against parental and school authority. Some of them could withdrawal from social relations and make dramatic gestures such as running away from home. Teenage depression could even be triggered by the loss of a loved one, dysfunctional family that is threatened by separation and divorce or where family members are in conflict with each other and are not communicating well. In such a scenario the adolescent may be deprived off the emotional support they need. She further explains that unlike adults depressed teenagers

may appear to be extremely angry and hyperactive which might be mistaken for normal adolescent emotional behaviour. Kasomo (2006) stipulates that the best way to deal with teenage depression is to communicate with them about their problems on reliable relative or friend could help might be needed. He adds that most adolescents make through these aggravating times and become competent adolescents. Melgosa (2001) suggests that parents must emphasize the positive qualities of their adolescent children to avoid having them join negative groups. When teenagers are satisfied with themselves, they keep their values and beliefs. An emotionally healthy adolescent is one who balances negative and positive emotions, experiences genuine emotions without becoming overwhelmed and expressing them in socially appropriate ways. Educators, teachers and parents are acknowledging the role of emotions and the ability to understand and manage them as determinates to success in life (Andrew, 2000). He further states that adolescence is a critical period for the development of emotional intelligence and emotional competencies that will eventually give an adolescent's life satisfaction and academic achievements.

Santrock (2001) states that adolescents are widely considered to be prone to recklessness and risk taking behaviour such as unsafe sex and youth crime. He adds that schools which have great material and personal resources often do not offer the moral perspective of sexuality. There is evidence however, that the adolescent risky sexual behaviour is biologically driven. Sharma (2007) asserts that this behaviour is caused by the emotional part of the brain (developing faster than the cognitive control part of the brain). Although most adolescents are psychologically healthy they can manifest signs of mental illness. He further explains that late adolescence especially in girls aged between 15 and 19 years old is the on-set of disorders such as anorexia and bulimia, depression and anxiety disorders. Experiencing such disorders would extremely interfere with academic concentration of an adolescent.

Harlock (2006) asserts that although adolescents in most cases do not express their personal feelings and attitudes, they can be influenced to do so by how secure they feel with the person to whom they are willing to make a disclosure. He adds that failure in school could make the adolescent become so emotional to that some may commit suicide, leave home or withdraw from

school altogether. Puberty is a time not only of increased risks but also of intense changes in emotions. Cohen (2012) explains that adolescents may display erratic or moody behavior, especially with the stresses of academic achievement and peer pressure.

2.2.2. Social Development in Adolescence

Adolescence signifies a critical and distinctive period in the life cycle, marked by rapid cognitive growth that drastically changes how one understands, communicates and functions within the social world (Moshman, 2011). Santrock (2010) stipulates that adolescents' physical maturation affects their social behaviour. He further explains that it's a period where rapid growth and psychological changes occur culminating in sexual maturity. Early maturing boys are usually taller and stronger than their friends (Melgosa, 2001). They are more likely to excel in sports. She goes on to state that such boys tend to have a good body image, are more confident, secure and independent. However, early onset of puberty in girls tends to be more stressful and is associated with greater psychological distress. According to Kaplan (1986) adolescence could be a very embarrassing period in the life of a teenager. Girls worry about the size of their breasts and the possibility of getting menstrual blood on their clothes. While boys worry about regular erection and unusual ejaculation. This makes the adolescents anxious and apprehensive when participating in co-curricular activities. These could have a negative influence on the adolescent's academic performance.

Mbiti (1969) explains that rites of passage in African communities introduced the candidate to adult life. They would share in the responsibilities and privileges of the community. This prepared the candidate for the expected social behaviour. Santrock (2010) explains that the purpose of social development is to seek freedom, relations and identity. He further states that the adolescent tries to synthesize the past, present and their future possibilities into accepted self. This is the adolescent search for identity. They have a great desire to be accepted and to identify with current teenage language, music, fashion and all types of entertainment. They try different selves in different situations. The adolescents could be a different person at home, with friends and at school. Such confusion can affect academic performance negatively. Erikson (1969) stipulates that not everyone fully achieves identity. Most adolescents face identity crisis where

they explore different possibilities and integrate different parts of themselves. Failure to form cohesive identity beyond adolescence can lead to problem later in life (Kroger, 1996). Girls who have difficulties forming an identity are more likely to experience marital disruptions in mid-life than their peers while boys are more likely to remain single and unsatisfied.

Researchers have over the years found adolescent isolation from the world of adults as a distinctive feature. Santrock (2005) attributes the isolation to many years of schooling where the adolescents spend most of their time with peers. Zanden (2003) further explains that social pressure to conform to a peer group could cause the adolescent to feel anxious, depressed or attempt suicide. He adds that they also begin to question authority, experiment with alcohol or drugs, become sexually active resulting to some of them dropping out of school. A number do manifest anti-social behaviour and many end up in juvenile correction institutions.

Nancy (2004) stipulates that premarital intercourse increases the risk of pregnancy and sexually transmitted diseases. Early sexual intercourse is less prevalent among adolescents who attend religious services frequently and live with their biological parents who are neither too strict nor too relaxed in their discipline. Adolescents whose academic performance are above average and have a harmonious relationship with their parents rarely engage in early intercourse. She adds that teenage mothers are more likely to come from poor background and may not receive early prenatal medical care and adequate nutrition. This exposes them to a higher risk of miscarriage and complication during delivery. Steinberg (2008) explains that teenager mothers score lower on intelligence tests and are more likely to exhibit disruptive behaviour. It's no wonder then that such mother misinterprets their child's emotions as anger and assumes what the child is being defiant.

Santrock (2010) reveals that adolescents are more happy spending time and communicating with peers than adults. As a result, conflict between adolescents and their parents increases at this time as the adolescent strives for independence and lesser adult supervision. Adolescents associate with friends of the opposite sex in childhood and also tend to identify with larger groups of peers based on shared characteristics. Melgosa (2001) asserts that group socialization in children and adolescents are shaped more by their peers than parents. As a member of a group,

the adolescent tries to behave according to group norms. He wants social recognition through self assertion which depends on the approval of the group. Social discrimination and alienation could result in place of recognition. Such an adolescent may feel embarrassed leading to a drop in their academic performance.

Many researchers have established a link between hormone levels and behaviour. Melgosa (2001) explains that boys who exhibit low levels of testosterone and high levels of endostestorene are more likely to manifest behaviour problems. These could range from talking back to adults and questioning authority in almost all domains. Kimmel and Weiner (1995) reveal that the root of anti-social behaviour in children and adults is their temperament from infancy where they could have had irregular sleep or restlessness. They add that effective parenting could improve many of these anti-social behaviors.

According to Kasomo (2006) proper socialization of an adolescent is important. When teenagers are not well nurtured socially by their parents, teachers and peers, they lack in qualities such as honesty, courage, kindness and self-esteem. He adds that this could result in maladjusted students who may not attain social maturity. Qureshi (2004) asserts that students who lack constant social stimulation experience intellectual deterioration and impaired problem solving abilities. A study by Soomro and Clarbour (2012) revealed that high social self-esteem is related to higher academic achievement.

2.2.3. Physical Development of Aadolescents

The most noticeable changes during adolescence involve physical, psychological, sexual growth and development, including the appearance of secondary sexual characteristics and the ability to reproduce (Cohen, 2012). Adolescents are worried by these physical changes and how they are perceived by others. Regardless of the timing of the physical changes that take place during adolescence, this is a period in which physical appearance commonly assumes paramount importance (American Psychological Association, 2002). Many adolescents experience dissatisfaction with their changing bodies. They are known to spend hours concerned about their appearance. They also wish to have their own distinctive style. They may spend a lot of time in

front of the mirror trying to achieve this goal. This could probably reduce their time on academic work.

2.2.4. Cognitive Development

Adolescents begin moving from childhood to adulthood due to their cognitive development. The brains begin to process more abstract thoughts especially focused towards self-reflection and self-identity (Barnett, 2012). They endeavor to learn to make good choices and decisions toward their future as responsible nationals. As adolescents develop their understanding of themselves, they become more aware of their emotions and feelings and how these feelings affect their daily lives. This is how they perceive their characteristics and abilities fit with the opportunities that are available to them. Many of the identity issues that begin during adolescence determine the path an adolescent may take including future college, vocational or career choices, as well as other aspects of their lives. Such choices could greatly influence the academic performance.

2.3. Parental Role in Adolescents' Academic Performance

Parents are the first socializing agents in an individual's life. Providing a supportive learning environment at home requires parents' time as much as financial resources (Emeka *et al.*, 2012). Weiner *et al* (1995) stipulates that young people usually identify closely with their parents' feelings about school and education. He explains that parents who value the education process and respect the efforts of their children teachers, foster positive attitude towards school and thereby influencing their children academic performance positively. Parents who are warm and accepting tend to have children who are socially competent. Adolescents who have experienced sibling hostility and inconsistent parenting during childhood and early adolescence end up having anti-social behaviour. Kroger (1996) adds that students who bully at school come from homes where they were bullied or canned. Whereas those students who look happy, relaxed and are well behaved were brought up without a lot of strictness and most of them succeed academically.

Nancy (2004) reveals that parents can shape certain traits in their children's social environments through their choice of the neighbourhood in which they live, the schools they attend and how

they spend their time outside the school. This means that parents influence the choice of peers with whom adolescents spend their time and in doing so affect the type of influence peer have. She adds that in extension parents are important nurturers in decreasing the risk of delinquency especially when they are consistent in their discipline and are keen in monitoring their children's activities. A parent's word or deed can influence the children's self concept while an undisciplined adolescent with a lot of pocket money can be lured to antisocial behaviour affecting his school performance negatively.

A study by Steinberg (2008) reveals that adolescents brought up by permissive parents were more likely to abuse alcohol, drugs and have discipline problems. Melgosa (2001) explains that authoritarian type of parenting is related more to psychological distress, less self reliance and lack of confidence. However, she emphasizes the importance of minimizing violence by not allowing adolescents to see or hear violent or aggressive behaviour in music and television.. Parents who are accompanied by their children to entertainment joints expose them to bad behaviour and alcohol. Such students could easily smuggle alcohol to school, sneak out or manifest other antisocial behaviour that would eventually affect their performance at school (McNeil, Reeder & Rich, 2012).

2.4. Academic Performance among Adolescents

Academic performance among adolescents could be influenced by emotional behavior, social behaviour and physical growth. Weiner et al (1995) explains that being in school and achieving at the level of their ability helps young people feel good about themselves. Those who do poorly or drop out of school develop low self-esteem and may fail to realize their intellectual and occupational potential. He adds that an adolescent's attitude towards school is influenced by peer and parental attitude towards school administration; grades attained and school disciplinary structure. Adolescents whose parents have unrealistic high expectations for their academics or social achievements may become truants or drop out of school all together (Nancy, 2004). Adolescents often suffer from mild mental disorders

Developing social and emotional capabilities supports the achievement of positive life outcomes, including educational attainment, employment and health (McNeil, Reeder & Rich, 2012). Skills

such as flexibility, communication, and negotiation enhance employability. Santrock (2010) reveals that adolescents who are unable to establish positive identity may perform poorly in schools since they lack successful adult with whom to identify with. Such adolescents develop negative identity by taking up antisocial role in the society that nevertheless provides them with a sense of belonging. Melgosa (2001) explains further that the constant experience of an adolescent being identified as less competent than their peers could be painful and demoralizing. A vicious circle could get started in this regard: doing poorly results in criticism and embarrassment, the young person tries to ease his distress by paying less attention to school work; this reduced attention leads to even poorer work resulting into more criticism and embarrassment. Students suffer from mild mental disorders which are often associated with other negative emotional and behavioral patterns in adolescence. These include impaired relationships and lower academic performance (Murphey, Barry, & Vaughn, 2013).

Developmental changes and academic performance

Martorell *et al.* (1998) found that students showed a marked decline in academic performance in the period between junior school and high school. Bouchey and Hartey (2005) note that the magnitude of decline subsequently led to increased dropout rates in various states. Several explanations have been offered to explain the negative trend. On the one hand, Fröjd *et al.* (2008) suggests that such declines could be a result of intra-physical upheaval which is a major symptom of adolescence. In his study among the Indonesian adolescents, he found that majority of behavioral problems could be traced to un-comfortability as well as self-esteem challenges as a result of body changes. The one common factor among adolescents around the globe is the shift and change of the body. On the other hand, Shapka and Keating (2003) suggest that this is simply a coincidence with the transition from junior (primary) to secondary (high) school. The transitions mean a completely new environment, where rules and regulations tough strict are not as easily enforced as in junior school. Adolescents are therefore more likely to rebel against what they imagine to be unfair and stringent behavioral measurements forced on them.

Christensen *et al.* (2006) draw on the cumulative stress theory suggesting that transition from primary to secondary education; change of subjects, separation from friends and exposure to a completely new environment leads to declined motivation. Pubertal development in itself can be

quite stressful because it is combined with various physical and biological changes. However, additionally school transitions can also lead to decreased motivation which in turn influences the behavior of the individual and academic performance in general. Leeson *et al.*(2008) conclude that the adolescent years are crucial in terms of determining and laying the foundation for future adulthood adjustment.

2.5. Guidance and Counselling for Adolescents

Mangal (2007) states that teacher counsellors, psychologists and parents have a duty to train the adolescents on how to integrate thoughts and emotions for proper behaviour. This he suggest could be attained by encouraging the adolescents not to suppress emotions since each feeling is significant as well as striking a balance between rational thoughts and emotions. Melgosa (2001) asserts that parents could support their children in their studies by devoting time to be with them. Spielberg (2002) supports this view and explains the “peer cluster theory” that young people who are in trouble in school have a tendency to find each other leading to further problems. There is need to counsel them before they get into antisocial behaviour. He further adds that they should be helped to develop social skills for better communication and interpersonal relationship with others. Teacher counsellors should be alert to some warning signs that an adolescent may be in trouble. These signs include persistent irritability, anger, or social withdrawal, as well as major changes in appetite or sleep (Murphey, Barry, & Vaughn, 2013). The duty of a counselor is to help the adolescent to clear the developmental confusion or crisis by helping them understand themselves in terms of where they are coming from, where they are and where they want to be. Being aware of their emotional states without becoming overwhelmed by them; adolescents could improve their academic performance (KIE, 2004).

2.6. Theoretical Framework

The study will be guided by the psychological theory of Development by Eric Erickson (1969).

2.6.1 Psychosocial Theory Human Development by Erick Erickson

The psychosocial theory is associated with Erick Erikson (1969). He explains stages in which a healthy developing human being should go through from infancy and his whole life span. Each psycho-social stage involves a struggle between two conflicting personality outcomes, one of which is positive, while the other is negative. As an adolescent confronts each stage, he

hopefully masters the new challenges therein. Each stage builds on the successful completion of earlier stages (Kroger, 1996). The challenges of stages not successfully completed may be expected to reappear as problems in the future. For the adolescent, it's either attaining identity or role confusion (Santrock, 2005).

The major challenge of adolescents is to establish a strong sense of personal identity. The dramatic onset of puberty combined with more sophisticated intellectual abilities which come out clearly in high school; make the adolescents particularly concerned with finding their own personal place in the adult world, leading most of them into questioning the authority of parents and school administration. They feel that they are no longer children yet it's not made clear what is expected of them. This creates a maturity gap since the adolescence achieves biological maturity without simultaneously getting to adult status. However, Erickson adds that development of ego identity can carry adolescence through life, with assistance from parents and teacher counsellors. Failure to integrate perceptions of the self into a coherent whole results into the adolescents engaging in abnormal behaviour like taking alcohol, drugs identify crisis. For such an adolescent negative behaviour is better than lack of identity. The psychosocial theory illustrates that inability to attain identity by an adolescent could lead to negative social and emotional behaviour resulting to poor academic performance. Emotional development during adolescence involves establishing a realistic and coherent sense of identity in the context of relating to others and learning to cope with stress and manage emotions (Santrock, 2001). Leary (2007) explains that emotional behaviors are a result of strong feelings that disturb the mind and excite an individual to act immediately. The same emotions guide and direct behavior which might negatively or positively influence an adolescent's academic performance.

2.6.2. Motivation systems theory

This theory is a direct product of Freud's theory of development. The motivation theory analyses the importance of the individual as the unit of analysis in understanding performance while embedding the same on the biological, social and environmental contexts. According to Freud's, a simple mathematical formula can be used to represent all factors that are important in academic performance.

Achievement = (Motivation x skills ÷ Biological structure) x Responsive environment

The formula suggests that actual achievement is a result of a highly motivated, skillful and biologically content individual. In order to gain achievement and in this case increase academic performance the following conditions need to be met:

- The adolescent needs to have enough motivation to focus on the goal. Body and social changes tend to digress the individual's motivation during this stage of development decreasing the possibility of success in academics.
- The adolescent must possess the right skills to construct and produce a pattern of activity that will produce the desired result. This means ideal adaptation to the secondary school environment, new subjects as well as social skills that in turn support high academic achievement.
- Biological structure that supports the operation of the motivation. Physical changes tend to digress the self esteem and motivation of the adolescent
- The adolescent be exposed to a responsive environment that allows and facilitates progress towards the goal.

2.7. Conceptual Framework

The conceptual framework in this study is based on the influence of adolescences on the students' academic performance in public secondary schools in Nakuru Municipality. The dependent variables in this study will be academic performance that will be measured in terms of exam results and school attendance. Academic performance is influenced by several factors (the independent variables). The independent variable in this study will be adolescence developmental changes. Intervening variable is a factor mediating the relationship between dependent and independent variables (Chandler & Munday, 2012). In this study, there are several intervening variables which are School environment, family background, parenting styles, peer pressure and cultural influences. To control the effect of intervening variables, simple random procedures will be used in selection of respondents. The study has been conceptualized as indicated in Figure 1.

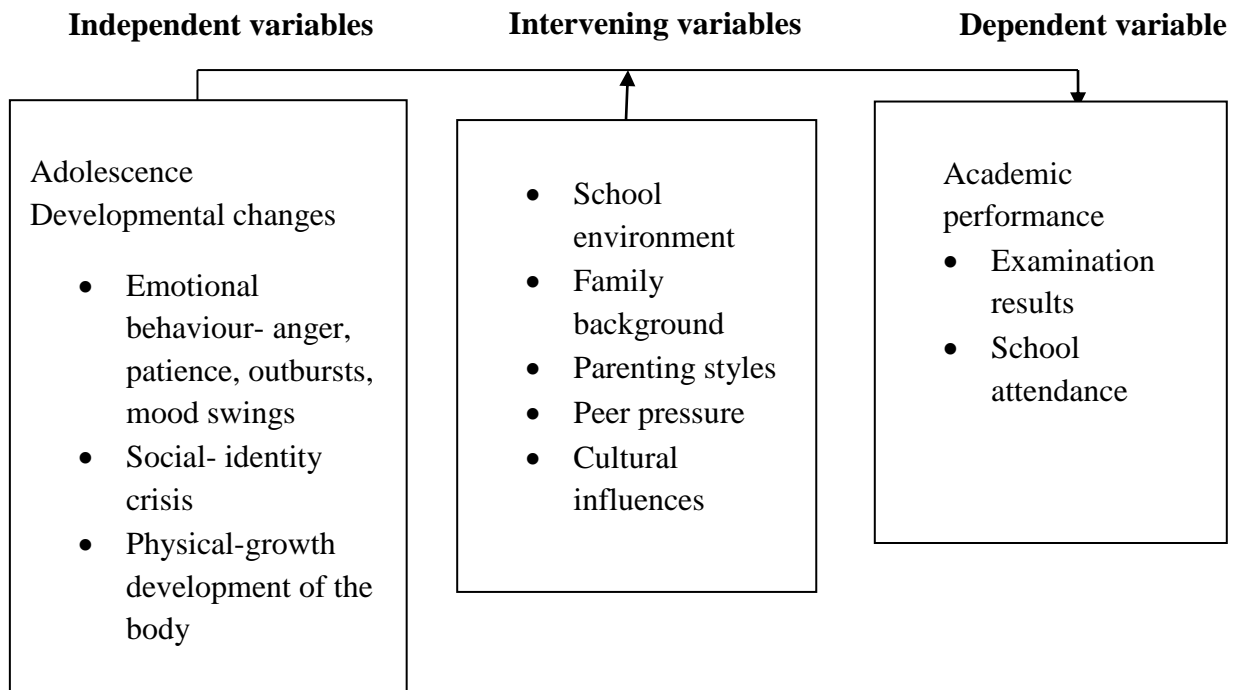


Figure 1: Influence of Adolescence on Academic Performance of Students in Public Secondary Schools in Nakuru Municipality in Nakuru County.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This chapter presents the research methodology that was used to carry out the study. It covers the research design, location of the study, target population, sampling procedures and sample size, instrumentation, data collection procedures and data analysis.

3.2. Research Design

The study adopted the ex-post facto causal comparative research design. Kathuri and Pals (1993) defined ex-post facto research as a systematic empirical inquiry in which the researcher does not have direct control of independent variables because their manifestation has already occurred or because they cannot be manipulated. This design was appropriate for this study because the manifestation of independent variables, that is emotion, social behaviour and physical changes, have already occurred without any manipulation, it was therefore appropriate to use this research design. This design was ideal as it enables an in-depth study of the relevant variables to be made in order to establish existing conditions in the schools. Studies that are concerned with what people think and what they do, and different types of educational fact finding, can utilize this research design (Frankel and Wallen, 1993). Mugenda and Mugenda (1999) argue that the method is often used because it does not permit experimental manipulation of the variables. This design was thus appropriate in determining influence of adolescence on academic performance of students in public secondary schools in Nakuru Municipality.

3.3. Location of the Study

The study was conducted in four public secondary schools in Nakuru Municipality. The location has been purposefully selected since it is a cosmopolitan town with adolescents from diverse cultural, ethnic and socio-economic backgrounds. The town has also political, economic and social activities that might lure adolescents and influence their social and emotional behaviour.

3.4. Population of the Study

The study targeted young people undergoing the adolescent stage. The accessible population comprised 14,832 form three secondary school students in 45 public secondary schools within

the Nakuru municipality and 60 teacher counsellors who were involved in guidance and counselling. The study sample was 375 students and 51 teacher counsellors. The sample comprised both male and female students and teachers. Form three students were found to be the suitable choice because most of them were in mid adolescence and were likely to exhibit adolescent's psychosocial, cognitive and emotional behaviour.

3.5. Sampling Procedure and Sample Size

The target population was 22,152 students in the municipality, while the sampling frame was 1,179 the number of students that are registered in form three. In selecting students for face to face interview care was be taken to select only the students who are in mid-adolescence (form three). This acted as the guiding criterion as recommended by Kalenga and Elsa (2011).

In determining the sample size (total number of students for this study from a target population of 10,000 and above observable units, the study followed the recommended statistical formulae for determining desired sample size using predetermined confidence levels (Green, 2000; SMART, 2012). This was determined as follows:

$$n = \frac{Z^2 p q}{d^2} \quad (1)$$

Where

n = the desired sample size

Z = the standard deviation set using a desired confidence levels (e.g. at 95% confidence intervals Z is 1.96),

P = the proportion of the target estimated to have a particular characteristic for example the students registered in public schools

q = 1-P, and,

d = the degree of accuracy desired and in this case it will be 95%,

In this study therefore, n was determined as follows:

$$n = \frac{1.96^2 \times 0.60 \times (1 - 0.60)}{0.05^2} = 369$$

3.6. Instrumentation

Data was collected by use of a self-administered structured questionnaire for the students (Appendix B) and an interview schedule for teacher counsellors (Appendix C) to gather information on the influence of adolescence on academic performance among public secondary school students in Nakuru Municipality. Questionnaires are commonly used to obtain important information about a population (Mugenda & Mugenda, 1999). The students questionnaire collected information from the students on their personal characteristics, grade attained at the end of the first term of form 3 examination, physical, social and emotional behaviour while the interview schedule for teacher counselors enquired on the social and emotional behaviour that they encounter among the students and the kind of help they have offered to the affected students.

3.7 Validity of Instruments

To ensure that the instruments accurately measured the variables of interest of the study, each of the items in the questionnaires and interview schedule was discussed with the lecturers from the Department of Psychology, Counselling and Education Foundations in the Faculty of Education and Community Studies of Egerton University and supervisors to ascertain the instruments' content validity. Attention was given to how each of the specific study objectives was captured in both the questionnaire and the interview schedule and modifications were made accordingly. Face validity was done to ensure the format of the instruments was consistent with the variables to be measured and to avoid biased responses from the respondents. Comments from the experts were incorporated into the instruments before they were used for data collection.

3.8. Reliability of Instruments

A measuring instrument is considered reliable if it provides consistent results or data after repeated trials (Kothari, 2008). To ensure consistency of the questionnaire and interview

schedule, the instruments were pilot-tested in Molo Municipality of Nakuru County with 30 students and 2 teacher counsellors from 2 schools with similar characteristics as the students in the study. According to Kathuri and Pals (1993), a minimum sample of 30 is recommended to ensure effective statistical analysis. Cronbach's Alpha Coefficient was used to determine the reliability of the instrument, internal consistency of 0.70 was acceptable. Adjustments were made accordingly to low coefficients in order to improve on the instrument.

3.9 Data Collection Procedure

Permission to conduct research was sought from the Nakuru District Education Office and an official letter was obtained from the Nakuru Municipal Education Office allowing the researcher to undertake the study and to access information from students and teachers in the respective schools. The researcher then visited and discussed with the Principals of the selected secondary schools on the proposed research and was granted permission to conduct the study. A research permit was obtained from the National council of Science and Technology (NACOSTI) in the Ministry of Education, Science and Technology, Nairobi, through the Egerton University Graduate School. The researcher then visited the schools and explained to the respondents the purpose of the study and gave them clear instructions before administering the questionnaire and the interview schedule. The researcher was always in attendance throughout the exercise of data collection to explain any issues that arose.

3.10 Data Analysis

Data was checked for accuracy of the responses, coded, and entered into the computer and analyzed using the Statistical Package for the Social Sciences (SPSS) version 22.0 for windows. Statistical analysis was carried out to determine the influence of adolescence on students' academic performance in public secondary schools in Nakuru Municipality. Descriptive and inferential statistics were used to analyze and present the results. Descriptive statistics included narratives, graphical and tabular form of presentation. Inferential statistics were used to assess existing relationships between the independent and dependent variables used in this study. The hypotheses were then tested using the simple linear regression analysis as well as correlation which deals with relationships between two variables (X and Y) or bivariate relationships. The regression analysis deals with prediction or explanation of one variable by the other. That is it

evaluates the ability of one variable to predict or explain a second variable. The independent variable or predictor variable is defined as X and the dependent or criterion variable as Y. in simple linear regression only a single predictor variable is included in the analysis (Lomax & Hahs-Vaughn, 2012). The data was first screened for missing values and violation of assumptions prior to analysis. The assumptions that were gauged included: (i) linearity using the scatter plots, (ii) test for independence of errors using the Dabin- Watson statistic, (iii) normality using the Q-Q plots and the histogram, (iv) homogeneity of the variance.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1. Introduction

This chapter presents results and discussions from the study on the influence of adolescence developmental changes on academic performance of students in public secondary schools in Nakuru municipality, Kenya. Data were analyzed using Statistical Package for Social Sciences (SPSS version 22) software, and were based on the objectives of the study. Descriptive statistics of frequencies and percentages as well as inferential statistics of chi-square and t- test were used to analyze the data. The chapter is divided into the following sections: (i) characteristics of the student respondents, (ii) characteristics of the teacher respondents, (iii) academic performance of the adolescent students, (iv) emotional behaviour of the adolescents, (v) social behaviour of the adolescent students, (vi) physical changes of the adolescent and (vii) the role of guidance and counselling services for adolescents.

4.2. Characteristics of the Student Respondents

The characteristics of the student respondents have been organized in to two categories namely age and gender of the respondents.

4.2.1. Age of Respondents

The age of respondents is a factor considered important to this study. This is due to the fact that adolescence affects individuals between the ages of 15 and 20. The students were asked to state their age and the results are indicated in Table 4.1.

Table 4.1**Age of the respondents**

Age in years	Frequency	Percent
15	15	4.0
16	105	28.0
17	167	44.5
18	64	17.1
19	17	4.5
20	7	1.9
Total	375	100.0

Mean 16.95±0.51, median 17, mode 17, std dev 0.986, minimum 15, and maximum 20

The majority of the respondents were between the age of 16 and 18 years, with only 6.4 % of them being above 18 years. The youngest respondent was aged 15 years, while the oldest was aged 20 years. The mean age was 17 years with a standard deviation of 0.986, meaning that there was a small variation in the age of the respondents. These findings reveal that majority of the respondents were in the age bracket when the adolescent problems are manifested. Sauna (2007) states that the current education system, which allows for eight years in primary school leads to a high number of adolescents, between the age of 15 and 18 in secondary schools. However, he cautions that this age gap could easily increase to between 17 and 21 years in rural areas where the education resources remain wanting.

4.2.2 Gender of the Student Rrespondents

The study aimed at determining whether there existed gender differences that were related to adolescent problems. The respondent's gender was recorded and their responses are given in Table 4.2.

Table 4.2**Gender of the Student Respondents**

Gender	Frequency	Percent
Male	210	56.0
Female	165	44.0
Total	375	100.0

From the data gathered majority of the respondents (56 %) were male, while the females formed 44 % of the sample. The difference in the number of the male and female students was line with the proportions that existed in the student population in the municipality. The male population of the boys in the municipality schools was 8,232 (55.5 %), while the female was 6,600 (44.5 %). This is in concurrence with the conclusions made by Somerset (2009) stating that the number of male students in secondary schools in Kenya is much higher than that of females. In his study, he found that whereas the number of females registering in secondary schools had increased significantly in the past decade, there remained a significant gap between male and female students.

4.3 Characteristics of the Teacher Counselor Respondents

This section reports the analysis of the characteristics of the teacher counselors within the secondary schools found in Nakuru municipality. The assessed characteristics included: their gender, age, highest academic level attained, counselling training received and teaching experience.

4.3.1 Gender

The gender of the teacher counsellors interviewed within the secondary schools in the Nakuru municipality was noted and analyzed; the frequency distribution is given in Table 4.3.

Table 4.3.**Gender of the teacher Counsellors**

Gender	Frequency	Percent
Male	27	52.9
Female	24	47.1
Total	51	100.0

The majority of the teacher counsellors within the Nakuru municipality were males (52.9 %), while the female counsellors were 47.1 %. This brings into question the study by Lucas and Mbiti (2012) who showed that female teachers were often more willing to participate and receive training in counselling. It seems however, that there is a significant increase of male counter teachers perhaps drawn by the increased campaigns focusing on the importance of counselling. Staudinger and Pasupathi (2003) also bring to light another factor that could explain such phenomenon. He indicates that the male citizen within developing countries is often in a better position to seek out tertiary education. With the pursuit of higher education, males have better chances of being employed in secondary schools.

4.3.2 Age of the Teacher Counsellors

The teacher counsellors were asked to state the age category that corresponded with their age. The results of the age categories, frequency distributions and percentages are given in Table 4.4.

Table 4.4**Frequency distribution of age Categories of the Teacher Counsellors**

Age categories	Frequency	Percent
25-30 years	3	5.9
31-40 years	18	35.3
41-50 years	24	47.1
Above 50 years	6	11.8
Total	51	100.0

The majority of the teacher counselors (47.1 %) were within the age category of 41 to 50 years. (Lee, 2001) states that younger teachers have only recently become employed. Although they understand the importance and the value of counseling, they are often more focused on advancing their careers rather than providing extra service. On the other hand, older teachers are much closer to retirement and have become overwhelmed with the tasks set before them. They are also set on traditions which focus more on disciplinary measures rather than counseling for success. The middle agers are enlightened on the importance of counseling and have interacted with students long enough to become invested in their futures.

4.3.3 Highest academic level attained by the teachers

The highest academic level attained by the teacher counsellors was analyzed in order to gauge their level of understanding of the adolescent problems; the results are given in Table 4.5.

Table 4.5
Highest academic level of the Teacher Counselors

Level attained	Frequency	Percent
Diploma in Education	15	29.4
Degree in Education	24	47.1
Master in Education	12	23.5
Total	51	100.0

The teachers involved in counselling in secondary schools within the Nakuru municipality were trained at three different levels the diploma, degree and at the masters. The majority of them (70.6 %) had attained the degree level. The highly trained teachers would be expected to perform their duties professionally and uplift the academic standards of the students.

The curriculum for teachers in degree programs sponsored by public universities exposes them to a variety of counseling courses. These courses have the aim of introducing basic counseling skills as well as enhancing the role of counseling in education. As a result, teachers with degrees are more prone to exercise their skills and experiences as counselors (Sink, 2009). Further, as

university students such teachers have had the advantage of seeking and interacting with counselors. They not only possess the ideal counseling skills, they have also established and personally recognized the importance of counseling. According to Mullis *et al.* (2003) since the government gives priority to degree holders in terms of employment, it is not surprising that counseling is quickly becoming a priority in handling adolescent behavior in public schools.

4.3.4 Teaching Experience of the Teacher Counselors

The teaching experience of the teachers was determined by asking the teachers to state the number of years they have been teaching secondary school students. The number of years taught were then grouped into four categories and their frequency distributions are given in Table 4.6.

Table 4.6
Teaching experience

Years taught	Frequency	Percent
5-10 Years	9	17.6
10-15 Years	9	17.6
15-20 Years	21	41.2
Above 20 Years	12	23.5
Total	51	100.0

The majority of the teacher counsellors (41.2 %) had worked for between 15 and 20 years, this means they have a lot of experience handling adolescents. Oketch and Kimemia (2010) indicate that as teachers become more experienced in their careers, they also become invested in ensuring the success of their students. Teaching becomes more than a job, and they are more likely to feel responsible for their students. They are therefore more willing to sacrifice time, energy and resources to play the role of school counselor. However as they near the age of retirement, they become less than willing to take up extra responsibilities in terms of counseling of students.

4.3.5 Counselling Qualifications

The study also determined the counselling qualifications of the teacher counsellors in order to understand how well they played their role as counsellors to the adolescent students. The counsellors were asked to state their counselling qualifications and the results are given in Table 4.7.

Table 4.7
Counselling Qualifications of the Teacher Counselors

Qualification	Frequency	Percent
Diploma in Counselling	6	11.8
Master in Education (Counselling)	9	17.6
Higher Diploma	3	5.9
Certificate	3	5.9
No counselling qualifications	30	58.8
Total	51	100.0

The majority of the teacher counsellors (58.8 %) did not have any qualifications in counselling, while 41.2 % had training in counselling ranging from certificate (11.8 %) to master degree. (17.6 %). The lack of professional counselling training can be a hindrance to the provision of counselling services to the adolescent students according to Mobegi et al., (2010) many of the teachers fall into the role of counselling by accident rather than by design. Public schools lack the resources to hire and train professional counsellors. Teachers are expected to pursue training of the same independently. However, they too lack the time and finances to invest in proper training. They are therefore forced to contend with the skills, experience and little knowledge that they possess. However, Sink (2009) shows that sometimes unskilled counsellors are more likely to do more damage to the delicate adolescents, than even the lack of counselling itself.

4.4 Academic Performance of the Adolescent Students

The first objective aimed at establishing the academic performance of students in public secondary schools within the municipality. This would later form the basis and foundation for the dependent variable.

H01: There is no statistically significant influence of emotional behaviour on academic performance of adolescents in public secondary schools in Nakuru municipality.

Table 4.8
Academic Performance of the Students

Grade	Frequency	Percent
A	3	.8
A-	3	.8
B+	5	1.3
B	17	4.5
B-	19	5.1
C+	39	10.4
C	52	13.9
C-	81	21.6
D+	90	24.0
D	45	12.0
D-	15	4.0
E	6	1.6
Total	375	100.0

The majority of the students (41.6 %) obtained a mean grade of D+ in all the subjects they were examined, while only 2.9 % obtained mean grades of B+ and above.

The mean grades were converted to mean scores using the standardized KCSE scores, where A is given a score of 12, A- a score of 11, B+ a score of 10, B a score of 9, B- a score of 8, C+ a score of 7, C a score of 6, C- a score of 5, D+ a score of 4, D a score of 3, D- a score of 2 and E a score

of 1. The results and the descriptive statistics are given in Table 4.8 D+ is considered a failing grade, since it would deter the student from pursuing majority of the courses in tertiary institutions. The growing complexity of our society calls for effective and functional education as the only way out.

Table 4.9
Examination Mean Scores for the Students

	Frequency	Percent
1.00	6	1.6
2.00	15	4.0
3.00	45	12.0
4.00	90	24.0
5.00	81	21.6
6.00	52	13.9
7.00	39	10.4
8.00	19	5.1
9.00	17	4.5
10.00	5	1.3
11.00	3	.8
12.00	3	.8
Total	375	100.0

Mean 7.8±.104, median 8, mode 9, standard deviation 2.015, minimum 1 and maximum 12

The majority of the students (24 %) had a mean score of 4, while the average mean score for the sample was 7.8 with a standard deviation of 2.015. The general performance of the students in the Nakuru municipality could be described as below average with 77.1 % of the student performance being below the average (7.8).

The mean scores were used in subsequent investigations, when comparing the influence of the independent variable on the dependent variable. Wachanga and Mwangi (2004) indicate that

performance in Nakuru secondary schools has been steadily declining. Despite the presence of several public schools, students continue to perform dismally. This is because they lack the right resources to increase performance, high student population rates and often have several cases of indiscipline directly reflecting on performance. Kaplan *et al.* (2005) counters indicating that poor performance is generally due to poor rehabilitation of adolescents. During this period, counselors and teachers are ill equipped to help the students manage the changes they are encountering as well as create a learning environment suitable for the students.

The mean scores of the male and female students were compared to gauge their differences using the independent t-test and the results are given in Table 4.10.

Table 4.10
Mean Comparisons of the Male and Female Scores Using the t-test

Exam scores for	N	Mean	Std. Deviation	Std. Error Mean	T	p
Male	210	5.4714	2.23321	.15411	3.123	.002
Female	165	4.8242	1.63406	.12721		

The results of the t-test (Table 4.10) indicate that the mean scores for the male students were statistically different ($t=3.123$, $df\ 373$) higher than the female students at $P<0.05$. Diego *et al.* (2003).states that the idea that the “girl child” has been shortchanged by schools has become common place. This has led to an increase in the school of thought that supports that females are more likely to perform poorly in schools. Smith *et al.* (2012) further indicates that female adolescents have a more difficult time adjusting to the changes in adolescence (which are more both physically and emotionally) as opposed to boys. Such poor adjustment then leads to poor motivation in terms of meeting academic goals. The result is that female students are therefore more likely to perform poorly.

4.5 Emotional Behaviour of Adolescents

Objective number two of the study intended to determine whether emotional behaviour of adolescents has an influence on the academic performance in public secondary schools in Nakuru Municipality.

H₀₂: There is no statistically significant influence of social behavior on academic performance of adolescents in public secondary schools in Nakuru municipality.

4.5.1 Emotional behaviour of the students

The variable emotional behavior of the students was created from student responses to five items related to youth emotions during adolescent in the Likert scale, the indicator items included: (i) whether they were angered easily, (ii) whether they felt lonely, (iii) whether they lacked motivation in constructive things, (iv) whether they exhibited troubled behaviour, (v) whether they were self-conscious of their body.

The respondents were asked to rate these indicators using a 5 point Likert scale. The individual responses by the youths for each survey item forming the 5 indicators dealing with student emotional behaviour in adolescent were converted to scores ranging between 1 and 5, with the most positive response “Strongly Agree” being rated highly with a score of 5, Agree a score of 4, Neutral 3, Disagree 2 and the most negative response “Strongly Disagree” being rated lowly, a score of 1. The total scores for each indicator item were calculated and the mean, standard error (SE), Standard deviation (SD) and range determined and the results are given in Table 4.11.

Table 4.11
Descriptive Statistics for Indicator Variables of Emotional Behaviour of the students

Indicators	Mean	SE	SD	Range
Easily Angered	3.666	0.060	1.180	4
Loneliness / feeling isolated	3.522	0.060	1.169	4
Lack of constructive motivation	2.362	0.800	1.550	4
Troubled behaviour	2.000	0.056	1.084	4
Self-consciousness	2.840	0.077	1.499	4
Index of student emotional behaviour	15.00	0.307	5.955	23

N=375

The scores for the five indicator variables were then added together to create an index of student emotional behaviour during adolescent (Table 12). The index had a mean of 15 and varied between 7 and 30. The index was then grouped into three categories which allowed for easier and faster analysis. The three groups were stated as follows; 5-10 (low), 11-20 (medium) and 21-30 (high).The reliability of the index using Cronbach’s alpha was found to be 0.861. The frequency distribution of the index is given in Table 4.12.

Table 4.12

Frequency Distribution of Index of Emotional Behavior of Students during Adolescence

Categories	Frequency	Percent
5 to 10 (Low)	106	28.3
11 to 20 (Medium)	196	52.3
21 to 30 (High)	73	19.5
Total	375	100.0

The emotional behaviour of adolescent students in Nakuru municipality could be described as medium (mean score of 15), this means that the problems of emotional behaviour among the students can be experienced. (Eisemon, 1990) quotes that during adolescence; young people face a myriad of emotional problems and issues. They are at a stage when the emotional state is not usually stable. It is expected therefore that there will be cases of emotional imbalance. However, when taken care of and dealt with, adolescents can be able to navigate the path of emotional development successfully.

4.5.2 Influence of Emotional Behaviour of Adolescents on their Academic Performance

The hypothesis number one of this study was stated as: *emotional behavior of adolescents does not influence academic performance in public secondary schools in Nakuru municipality?* hypothesis question was answered using the simple linear regression analysis which deals with relationships between two variables (X and Y) or bivariate relationships. The total score for academic performance of the adolescent students formed the dependent variable, while the index of the emotional behaviour of the adolescent students formed the independent variable. The

results of the regression model are presented in Table 4.13 and the regression coefficients are given in Table 4.13.

Table 4.13
Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.766 ^a	.602	.601	1.2735

a. Predictors: (Constant), index of adolescent emotions

The regression analysis results are given in Table 4.13. The model indicates an adjusted R² value of 0.601, this means that the adolescent emotional behaviour only explained approximately 60.1 % of the variation in the academic performance of the adolescent students, suggesting a large effect existed between the two variables this was further collaborated by a correlation test carried out on the data gathered as shown in Table 4.14

Table 4.14
Correlation co-efficient summary

Variables	r-value	p-value
Emotional behavior	-0.602 **	0.000
Academic performance		

The correlation test shows that there is a high significance between emotional behaviour and academic performance.

Silk et al., (2004) stated that with lots of changes in thinking comes a range of emotions that the young person may not have experienced in the same way previously. While the young person is developing their own self-identity it is understandable that in this process they may experience more moodiness, irritability, and frustration, however again, as their skills develop, their ability to manage these fluctuating emotions becomes more advanced. These changes also see the young person developing a greater sense of empathy, shifting from a focus of being self-centered

to now understanding more about the experiences of others. He concludes that these drastic emotional changes are likely to reduce concentration in class, encourage indiscipline and rebellion and essentially lead to a lack of focus which is detrimental to performance in school. Kaplan *et al.* (2005) linked positive emotions to achievement. Joy, hope and pride are positive emotions that are likely to lead to improved and excellent academic performance. However as adolescence approaches, individuals tend to struggle with low self esteem, decreased self worth in addition to fluctuating moods. These negative effects are what is most likely the cause of lowered academic performance.

The regression coefficients of the model, showing t-statistics and the tolerance levels are given in Table 4.15.

Table 4.15
Regression Coefficients

	Unstandardized		Standardized			
	Coefficients		Coefficients			
	B	Std. Error	Beta	t	p	Tolerance
(Constant)	9.126	.179		51.120	.000	.866
Emotional behavior	-.263	.011	-.776	-23.737	.000	.731

a. Dependent Variable: examination scores

The regression analysis (Table 4.15) indicates that the level of emotional behaviour among adolescent students had a significant ($p \leq 0.05$) effect on the academic performance of adolescent students ($\beta = -0.776$, $p = .000$). This means that adolescent emotional behaviour of students negatively affects their academic performance in schools. These results confirm Steinberry (2008) assertion that poor examination grades are associated with delinquency.

4.6 Social Behaviour

Objective number three of the study set out to investigate whether social behaviour of adolescents has an influence on academic performance in public secondary schools in Nakuru Municipality.

Ho₃: There is no statistically significant influence of physical growth of adolescents on academic performance in public secondary schools in Nakuru municipality.

4.6.1 Social Behavior of the Adolescent Students

The variable social behavior of the students was created from student responses to five items related to youth emotions during adolescent in the Likert scale, the indicator items included: (i) sexual attraction to the opposite gender, (ii) support to other adolescents, (iii) peer socialization, (iv) succumbing to peer pressure, (v) lack of courage. The respondents were asked to rate these indicators using a 5 point Likert scale. The individual responses by the youths for each survey item forming the 5 indicators dealing with student emotional behaviour in adolescent were converted to scores ranging between 1 and 5, with the most positive response “Strongly Agree” being rated highly with a score of 5, Agree a score of 4, Neutral 3, Disagree 2 and the most negative response “Strongly Disagree” being rated lowly, a score of 1. The total scores for each indicator item were calculated and the mean, standard error (SE), Standard deviation (SD) and range determined and the results are given in Table 4.16.

Table 4.16

Descriptive Statistics for Indicator Variables of Social Behaviour of the students

Indicators	Mean	SE	SD	Range
Sexual attraction to the opposite gender	3.122	0.075	1.461	4
Support given to peers	2.461	0.073	1.426	4
Peer socialization	2.642	0.074	1.449	4
Succumbing to peer pressure	1.592	0.055	1.075	4
Lack of courage	1.592	0.055	1.139	4
Index of student social behavior	15.18	0.271	5.265	23

N=375

The scores for the five indicator variables were then added together to create an index of student social behaviour during adolescent. The index had a mean of 15.18 and varied between 7 and 30. The reliability of the index using Cronbach's alpha was found to be 0.890. The frequency distribution of the index is given in Table 4.17.

Table 4.17

Index of Social Behaviour of Students during Adolescence

Categories	Frequency	Percent
5 to 10 (Low)	85	22.7
11 to 20 (Medium)	225	60.0
21 to 30 (High)	65	17.3
Total	375	100.0

4.6.2 Influence of Social Behaviour of Adolescents on their Academic Performance

The hypothesis number two of this study was stated as: *social behavior of adolescents does not influence academic performance in public secondary schools in Nakuru municipality?*

The hypothesis was answered using the simple correlation co-efficient and linear regression analysis which deals with relationships between two variables (X and Y) or bivariate relationships. The total score for academic performance of the adolescent students formed the dependent variable, while the index of the social behaviour of the adolescent students formed the independent variable. The results of the correlation coefficient are presented in Table 4.18 and the regression coefficients are given in Table 4.18.

Table 4.18

Correlation coefficient summary

Variables	r-value	p-value
Social behavior	0.438 *	0.000
Academic performance		

The results show that indeed a significant relationship exists between social behavior and academic performance. This neglects the null hypothesis, showing instead a positive relationship exists between positive social behavior and academic performance. Viru *et al.* (1999) suggest that two factors are important when it comes to social behavior and these are quantity of the relationships and quality of the same relationships. He continues to state that for adolescents, the importance lays not in quality but more on the number of relationships which are in turn translated to the level of acceptance. While seeking out the approval of their peers, they are more likely to engage in crude and delinquent behavior which in turn decreases their ability to perform adequately in academics.

Table 4.19
Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.661 ^a	.438	.436	1.51339

a. Predictors: (Constant), index of adolescent social behavior

The regression analysis results are given in Table 18. The model indicates an adjusted R² value of 0.436; this means that the adolescent social behaviour can only explain 43.6 % of the variation in the academic performance of the adolescent students.

The regression coefficients of the model, showing the beta, t statistics and the tolerance levels are given in Table 4.20.

Table 4.20
Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients			Tolerance
	B	Std. Error	Beta	T	p	
(Constant)	9.032	.239		37.809	.000	.866
Social behaviour	-.253	.015	-.661	-17.035	.000	1.000

a. Dependent Variable: examination scores

The regression analysis (Table 4.20) indicates that the level of social behaviour among adolescent students had negative and significant ($p \leq 0.05$) effect on the academic performance of adolescent students ($\beta = -0.661$, $p = .000$). This means that adolescent social behaviour of students negatively affects their academic performance in schools. This agrees with the findings of Mahoney and Stattin (2000) who indicated that during this stage, adolescents engage with fellow peers and age mates; they become influenced into attempting anti-social behavior as a way of fitting in with the crowd. Coie et al., (1998) conclude that it is during this stage that majority of the juveniles become involved in juvenile delinquency, pre-marital sex and relationships that draw attention away from academic performance. They become less concerned with improving their own performance in schools and more concerned with fitting in with their peers at any cost.

4.7 Physical Growth of Adolescents

Objective four of this study set out to determine the influence of physical growth of adolescents on academic performance in public secondary schools in Nakuru Municipality.

Ho4: There is no statistically significant role played by guidance and counselling in enhancing adolescents academic performance in public secondary schools in Nakuru municipality.

4.7.1 Physical Growth of the Students

The variable physical growth of the students was created from student responses to five items related to physical growth during adolescent using a 0, 1 scale (or dummy variable), the indicator items included: (i) growing beards for the male/ burst enlargement for girls, (ii) broken voice, (iii) increase in body weights, (iv) menstrual periods for girls/ wet dreams for boys, (v) increased height. The respondents were asked to rate these indicators using a 0, 1 scale. The individual responses by the youths for each survey item forming the 5 indicators dealing with student physical growth in adolescent were converted to scores ranging between 0 and 1, with the most positive response “Yes” being rated highly with a score of 1, and “No” being rated lowly, a score of 0. The total scores for each indicator item were calculated and the mean, standard error (SE), Standard deviation (SD) and range determined and the results are given in Table 4.21.

Table 4.21**Descriptive Statistics for Indicator Variables of Social Behaviour of the Adolescents**

Indicators	Mean	SE	SD	Range
Growing of beards/ burst enlargement	0.644	0.023	0.461	1
Broken voice	0.488	0.025	0.500	1
Increase in body weight	0.720	0.023	0.449	1
Menstrual periods/ wet dreams	0.474	0.028	0.500	1
Increase in height	0.474	0.058	0.500	1
Index of adolescent physical growth	2.802	0.447	1.229	5

n=375

The scores for the five indicator variables were then added together to create an index of student physical growth during adolescent. The index had a mean of 2.802 and varied between 1 and 5. The reliability of the index using Cronbach's alpha was found to be 0.779. The frequency distribution of the index is given in Table 4.22.

Table 4.22**Index of Physical Growth of Students during Adolescent**

Index	Frequency	Percent
5 to 10	126	31.7
11 to 20	70	17.6
21 to 30	201	50.7
Total	397	100.0

4.7.2 Influence of Physical Growth of Adolescents on their Academic Performance

The hypothesis number three of this study was stated as: *physical change of adolescents does not influence academic performance in public secondary schools in Nakuru municipality?*

The hypothesis was tested using the simple correlation coefficient and linear regression analysis which deals with relationships between two variables (X and Y) or bivariate relationships. The bivariate regression was used to analyze the influence of physical changes among the adolescent students on their academic performance. The index of physical change was used as the independent variable, while the scores for academic performance were used for the dependent

variable, the results of the correlation and regression model are presented in Table 4.23 and the regression coefficients are given in Table 4.24 respectively

Table 4.23.

Correlation Coefficient Summary

Variables	r-value	p-value
Physical changes	0.224	0.000
Academic performance		

The correlation test upheld the hypothesis that physical change does not affect academic performance. Kaplan *et al.* (2005) indicate that the current curriculum begins making students aware of the impending changes at an early age. Students are therefore better equipped to handle the changes and poses skills which make the transition much easier. Further, changes occur individually as well as in a group. Since majority of the students are undergoing similar physical changes, there is a form of camaraderie in dealing with the challenges that come with physical change. The impact that such changes have on academic performance is therefore reduced.

Table 4.24

Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.156 ^a	.224	.222	1.9934

a. Predictors: (Constant), examination scores

The regression analysis results are given in Table 4.24. The model indicates an adjusted R² value of 0.222; this means that the physical growth factor can only explain 22.2 % of the variation in the examination scores. The regression coefficients of the model, showing the beta, t statistics and the tolerance levels are given in Table 4.25.

Table 4.25**Regression Coefficients**

	Unstandardized		Standardized			Tolerance
	Coefficients		Coefficients			
	B	Std. Error	Beta	t	P	
(Constant)	5.901	.257		23.006	.000	
Physical growth	-.255	.084	-.156	-3.042	.003	1.000

Dependent variable: examination scores

The regression analysis (Table 4.25) indicates that the level of physical growth had negative though not significant ($p \leq 0.05$) effect on the examination scores ($\beta = -0.156$, $p = .003$). Since a negative and significant influence between adolescent student's physical growth and their examination scores was established, the study can conclude that physical growth during adolescent influences examination performance negatively. As Dahl, (2004) shows, when adolescents begin to show outward changes in their bodies, they become overwhelmingly concerned with such changes drawing attention away from studying and academic performance. Physical development almost always leads to low self-esteem. Bullying and aggressiveness are closely correlated to physical changes. With all these aspects, physical development becomes an increasing concern when it comes to performance of the students. Counsellors are however skilled and trained to help students deal with occurring physical changes. In fact, it might be that counsellors are well trained and knowledgeable in dealing with these forms of changes than with any other change. Physical changes are infact more relatable since they are uniform over time and different individuals unlike emotional and social changes which are neither uniform nor measurable.

4.8 The Role of Counseling for Adolescent Students

Objective four of this study intended to determine the role of guidance and counseling in facilitating the adolescents' academic performance in public secondary schools in Nakuru Municipality.

4.8.1 Student and Teacher Perception on the Role of Teacher Counselling Services

The role played by the teacher counselors to the adolescent students was determined by gauging the perception of the students and the teacher counsellors. The students were asked three questions to determine the role of counsellors to adolescents, they included: (i) have you sought counselling services at the school? (ii) What were your reasons for seeking counselling services? (iii) Were you helped by the counselling services? The data generated by the students for the three questions were analyzed using descriptive statistics in order to gauge the role of the counselling services

Do students seek teacher counselling services?

The students were asked to state whether they did seek counselling services from the school and their responses are given in Table 4.26.

Table 4.26

Percent of Students seeking Counselling Services at the School

Responses	Frequency	Percent
Sought Counselling services	344	91.7
Did not Seek Counselling services	31	8.3
Total	375	100

The data shows that the majority of the students (91.7 %) sought counselling services from the teacher counsellors, and only a small portion (8.3 %) that did not. This shows that the counselling services played a big role in the lives of the adolescents. Lee (2001) shows that a change has come upon the modern culture. Adolescents have become more self-aware, in terms of the problems and issues they are facing. The school counselor, who was once thought of as a form of punishment, is now considered a possible solution to the myriad of problems facing the adolescent. Since they are not comfortable talking to their parents and their peers seem insistent on misleading them; students are now continually turning to the school counselor to get the help that they need.

Reasons for seeking counselling services

The students were asked to state their reasons for seeking counselling services and their responses and frequency distribution are given in Table 4.27.

Table 4.27

Reasons for Adolescents seeking Counselling Services

Reasons for seeking counselling services	Frequency	Percent
Violating school regulations	116	30.9
Poor academic results	96	25.6
Relationship with peers	76	20.2
Family problems	35	9.3
Did not seek counseling	31	8.3
Lack of school fees	11	2.9
Sickness	8	2.1
Bereaved	2	0.5
Total	375	100

The students identified seven different reasons for seeking counselling services, these included: (i) violation of school regulations (30.9 %), poor academic results (25.6 %), relationships with the peers (20.2 %), family issues (9.3 %), lack of school fees (2.9 %), sickness (2.1 %) bereavement (0.5 %),.

The major reasons given by the adolescents for seeking counselling were violation of school regulations, poor academic results and relationship with the peers all of which are related to adolescent problems.

Adolescents have primary and secondary concerns. For primary concerns such as intimate relationships, they are more likely to seek the help of their peers. This is because they often feel uncomfortable speaking to adults about what they consider to be private and personal matters. On the other hand, secondary concerns include academic performance and relationships within the school. In these matters, the school counselor is considered an authority who can lend a lasting solution. However, it is important to note that when it comes to disciplinary matters,

students do not voluntarily seek out counseling. In most cases they are forced to, as a way of avoiding severe punishment (House and Martin, 1998).

This list of the problems affecting the adolescent students was confirmed and expanded by the teacher counsellors when they were asked to state the problems they encountered during their counselling sessions as given in Table 4.28.

Table 4.28
Counseling Cases Handled by the Teacher Ccounselors

counselling cases handled	Frequency	Percent
Boy-girl relationships	51	100
Negative peer pressure	51	100
Truancy	48	94.1
Drug and substance abuse	42	82.4
Dropping out of school	42	82.4
Defiance to authority	39	76.5
Parent – Child relationship	36	70.6
Violence among students	33	64.7
Vandalism and theft	6	11.8
Pregnancy	3	5.9
Wrong use of internet	3	5.9
Sodomy	3	5.9
Poor financial background	3	5.9
Girls relationship with old men	3	5.9

n= 51

The teacher counsellors identified 14 different cases that they had come across during their counselling sessions, these included: (i) Boy-girl relationships (100 %), (ii) Negative peer pressure (100 %), (iii) Truancy (94.1 %), (iv) Drug and substance abuse (82.4 %), (v) dropping out of school (82.4 %), (vi) Defiance to authority (76.5 %), (vii) Parent – Child relationship (70.6 %), (viii) Violence among students (64.7 %), (ix) Vandalism and theft (11.8 %), (x) Pregnancy

(5.9 %), (xi) Wrong use of internet (5.9 %), (xii) Sodomy (5.9 %), (xiii) Poor financial background (5.9 %), and (xiv) Girls relationship with old men (5.9 %). This means the problems were distributed in all the schools within the municipality.

The teachers when asked whether the problems they encountered affected the performance of the students they confirmed (100 %) that they do affect the academic standards of the students. The results support House and Hayes (2002) study who stated that majority of the prime school counselors’ deal with boy-girl relationships especially where such have gone awry. They are often used by the schools to provide education and insight as well as caution to the same. At the same time, they are often used as a form of disciplinary measure for students involved in truancy and other discipline cases and problems.

4.9 Counseling Services

The students were asked to state whether the counselling services were of help to them and their responses and frequency distributions are given in Table 4.29.

Table 4.29

Help given by the counselling services

Were the counselling services of help to you?	Frequency	Percent
Yes they were of help	333	88.8
No they did help	11	2.9
Not applicable	31	8.3
Total	375	100

The majority of the adolescent student (88.8 %) reported that they were helped by the counselling they received from the teacher counsellors within the school. This has the implication that counselling services played a big role in the lives of the students within the municipality. Lee (2001) in his study concludes that, when it comes to students, school counseling services can improve academic performance by identifying barriers to learning. School counselor’s work with students individually or in small groups to help children work through difficult issues so that they can stay focused in the classroom and gets the most out of

school. School counselors help children become emotionally available to learning so that they can get "back in the game" as soon as possible.

On a larger scale, school counselors deliver a guidance curriculum that focuses on what are considered the common needs of the majority of learners in schools today. Southington's Comprehensive School Counseling Program is based on state and national program and content standards. The topics presented are aligned with the state and national content standards, with the purpose of helping all students become effective learners, build self-confidence, develop interpersonal skills, respect self and others, resolve conflicts, and make responsible choices (Brott and Myers, 1999).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter outlines the summary, conclusions and recommendations made based on the data that was analyzed. The chapter starts with a summary of the study, then the conclusions made from the analysis of the data and finally outlines suggested recommendations on the different activities that can be put in place to enhance the academic performance of the students in Nakuru municipality. The recommendations can be of benefit to the students and the country.

5.2. Summary of the Study

This research was undertaken to establish the effects associated with adolescent students (emotions, social behaviour and physical growth) and the role of counselling on the academic performance of secondary students in Nakuru municipality.

- (i) In the Nakuru municipality secondary schools the boys formed the largest portion of the student population (56 %) compared to the girls. The teacher counsellors in secondary schools within the Nakuru municipality were mainly men (52.9 %). The majority of teacher counsellors (70.6 %) had degrees, but only 41.2 % were trained in counselling. The academic performance of the secondary students in the Nakuru municipality averaged 7.8 (on a scale of 1 to 12).
- (ii) The emotional behavior of the adolescent students in Nakuru municipality was found to be within the medium range (a score of 15 on a scale of 5 to 30). The academic performance of adolescent students was significantly ($p \leq 0.05$) negatively affected by the emotional behaviour of the adolescent students.
- (iii) The social behaviour of adolescents in Nakuru municipality secondary schools was rated at 15.8 on a scale of 1 to 30. The academic performance of the adolescent students was significantly ($p \leq 0.05$) negatively affected by the social behaviour of the adolescent students.
- (iv) Physical growth of the adolescent students significantly ($p \leq 0.05$) negatively affected their academic performance.

- (v) Student counselling in secondary schools within the municipality played a big role in alleviating the different problems the adolescent students were undergoing.

5.4. Conclusion

- i) The academic performance of adolescents has been influenced negatively in public secondary schools in Nakuru Municipality.
- ii) Emotional behavior of adolescents has negatively influenced the academic performance of adolescents in public secondary schools in Nakuru Municipality.
- iii) Social behavior of adolescents has negatively influenced the academic performance of adolescents in public secondary schools in Nakuru Municipality.
- iv) Physical growth of adolescents has negatively influenced the academic performance of adolescents in public secondary schools in Nakuru Municipality.
- v) Guidance and counselling has positively influenced the academic performance of adolescents in public secondary schools in Nakuru Municipality.

5.5 Recommendations

The following can be done to enhance the academic performance of the adolescent students in secondary schools within the Nakuru municipality:

- (i) The emotional behaviour had the highest influence on the academic performance. Students lack the ability and skills to deal with the various emotional changes that they are experiencing. There is need to train more teacher counsellors who will be mandated to occasionally hold seminars for the adolescent students on how to manage their emotional challenges. This will allow them to gain the right skills and knowledge which can be applied towards equipping adolescents for gainful adoption of emotional skill management.
- (ii) Socially adolescence are shaped more by peer than parents. Parents should have frequent forums with their adolescences whereby they would strengthen values like trust and honesty. This hopefully will make adolescents feel secure with their parents' company too.
- (iii) The school curriculum which has been inclusive of physical changes in adolescence should continue to be emphasized. Students need to be properly prepared and equipped by their teachers to deal with their physical changes. Lessons should therefore go beyond basic changes, and move more towards coping mechanism and skills for the adolescents.

- (iv) Use of professionally trained teacher counsellors with experience to assist the adolescent students with the problems they are undergoing. This means adequately seeking out skilled teacher counselors to offer therapeutic interventions to individual students. This will ensure a higher chance of success in equipping students with the right skills and assisting them to adjust to the changes brought on by adolescence.

5.6 Areas for Further Research

Two areas of study need to be undertaken in the municipality in the future, they include:

- (i) Prevalence of gender disparity with regard to adolescence and academic performance of students in Kenya.
- (ii) Challenges encountered by the teacher counsellors in this study that affect the adolescent students such as: boy-girl relationships, drug and substance abuse, student-parent relationships, truancy and defiance to authority.

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APPENDICES

APPENDIX A: INTRODUCTORY LETTER TO RESPONDENTS

Dear Sir/Madam/Student

My name is Rachel N. Gicharu. I am conducting a research on the Influence of Adolescence on Students Academic Performance. The purpose of this study is to gather information and be able to offer suggestions on how the negative influence of adolescence can be managed for the purposes of improving academic performance of the students. The information obtained will be kept in strict confidence and anonymity. Please give your honest responses to all the questions to enhance my research findings.

Thank you in advance for your participation.

Yours faithfully,

Rachel N. Gicharu.

APPENDIX B: QUESTIONNAIRE FOR STUDENTS

This questionnaire is meant for soliciting information pertaining to the influence of adolescence on students' performance. The information provided will be treated with utmost confidence

Please respond by putting a tick (✓) where appropriate.

1. Your age in years.....
2. Gender a) Male [] b) Female []
3. Please tick (✓) in the box against the overall grade that you obtained at the end of first term form three examination

a) A []	A-[]	
b) B+ []	B []	B-[]
c) C+ []	C []	C- []
d) D+ []	D []	D- []
e) E []		
4. Please indicate your level of agreement with each of the following statements pertaining to the influence of adolescence on students' performance by circling (O) the option that best describes your response.

Key

SD Strongly disagree

D Disagrees

U Uncertain

A Agree

SA Strongly agree

For example –Students who work hard excel in SD D U A SA examinations

Answer – Students who work hard excel in examinations. SD D (U) A SA

NB/ The answer signify that you are uncertain whether students who work hard excel in examinations.

Emotional behaviour						
1	I am easily irritated (irritable)	SD	D	U	A	SA
2	I tend to feel isolated or lonely (loneliness)					
	I easily get angry (angered easily)					
3	I lack motivation in doing constructive things					
4	I have been sent home due to indiscipline					
5	I am embarrassed by my body image (self-conscious)					
Social						
1	I am sexually attracted by the opposite sex and I day dream a lot of the opposite sex					
2	I am not supportive to my peers in exchanging materials, and learning					
3	I don't socialize easily with youths of my age					
4	I will do anything that will make me be accepted by my friends even if it is wrong to do it					
5	I lack courage, and am easily embarrassed when in a group					
6	I am afraid of asking teachers questions in class					

Counselling services

5. Have you violated any school rule or regulation in the last 2 months? Yes [] No. []
6. If yes to question 5 above, please explain the action taken by the school administration against you.....
7. (a). Have the teacher counsellors been of help to you in dealing with your problems?
Yes [] No. []
(b). If yes, please explain what help they have offered you.....
8. Have you sought counselling services at school: Yes [] No. []
9. Why did you seek counselling services

10. Were you helped by the services Yes [] No. []

11. Reasons for seeking counselling:

Violating school regulations [], poor academic results [], family problems [],
relationships with peers [], poor academic performance []

Physical

12. Select your height range from the choices given below

- (a). Below 4 feet
- (b). 4-5 feet
- (d). >5feet

13. Select the secondary sexual characteristics that have appeared on your body from the list given below as they apply. Tick(√) the appropriate response

	Secondary Sexual characteristics	Boys		Girls	
		Yes	No.	Yes	No.
a.	Beards	xxxx	xxxx		
b.	Burst			xxx	xxxx
c.	Broken voice				
d.	Increased weight				
e.	Menstrual periods			xxxx	xxxx
f.	Increased height				
g.	Wet dreams	xxx	xxx		

14. Do you participate in any co-curricular activity? Yes [] No. []

15. If yes to the 10. above, please indicate the co-curricular activity that you participate in....

-Thank you-

APPENDIX C: INTERVIEW SCHEDULE FOR TEACHER COUNSELLOR

The questionnaire is meant for soliciting information on the influence of adolescence on the student's physical growth, emotional and social behavior, and current counseling efforts employed by the school. The information provided will be treated with outmost confidence.

Please respond by putting a tick (✓) where required

1. Your age in years
a) Below 25 [] b) 25 to 30 [] c) 31-40[] d) 41-50[] e) Above 50[]
2. Gender Male [] Female[]
3. Teaching experience
a) Below 2 years []
b) 5 to 10 years []
c) 10 to 15 years []
d) 15 to 20 years []
e) Above 20 years []
4. Teaching lesson per week
a) Below 20 []
b) 20-30 []
c) Above 30 []
5. Indicate the highest level of education you have achieved by putting a tick (✓) where appropriate.
a) KCSE []
b) Diploma in Education []
c) Degree in Education []
d) Masters in Education []
e) Any other (s) please specify.....
6. Have you been specially trained as a teacher counselor? Yes [] No []
7. If yes to the question 6 above, please indicate your Counselling qualifications.
.....

8. Choose one of the alternatives given below which describes your relationship with students in your school? (Put a tick (√) where appropriate).

Very good []

Good []

Moderate []

Not good []

Unsure []

9. Explain the alternative you have selected.....

.....

10. In your everyday interaction with students, do you come across some of the following behaviour? (Put a tick (√) where appropriate in table 1 below)

Table 1

Behaviour	Yes	No.
a) Truancy		
b) Defiance of authority		
c) Violence among students		
d) Boy/girl relationship		
e) Parents/child conflict		
f) Drug and substance abuse		
g) Negative peer pressure		
h) Dropping out of school		

11. Please indicate any other behaviour not mentioned.....

.....

12. In your opinion, what are the major causes of these behaviour?.....

.....

13. How do think the above behaviour affect students academic performance?.....

.....

14. Have you put counselling efforts in place in the Guidance and Counselling Department to assist students with deviant behavior?

Yes []

No. []

15. Please, explain your response in question 14 above.....

.....

-Thank you-

APPENDIX D: LETTER OF RESEARCH AUTHORISATION

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

Telegrams: "LEARNING"

Telephone: 2216529/2216563

When replying please quote



SUB COUNTY EDUCATION OFFICE
NAKURU SUB COUNTY
P.O. BOX 1028
NAKURU

REF: NKU/ED/18 (113)

31st August, 2015

ALL PRINCIPALS
PUBLIC SECONDARY SCHOOLS
NAKURU SUB COUNTY

REF: RESEARCH AUTHORISATION – RACHEL NYAMBURA GICHARU

The above named student from Egerton University has been authorized to carry out research on **“Influence of adolescence developmental changes on academic performance of students in Public secondary schools in Nakuru Municipality, Nakuru County”** in Nakuru district for a period ending 31st May 2016.

Kindly offer the assistance required.

A handwritten signature in blue ink, appearing to read 'Kamau Christopher'.

For: DISTRICT EDUCATION OFFICER
NAKURU DISTRICT

Kamau Christopher
FOR: Sub County Director of Education
NAKURU SUB COUNTY


APPENDIX E: RESEARCH PERMIT


THIS IS TO CERTIFY THAT:
MS. RACHEL NYAMBURA GICHARU
of EGERTON UNIVERSITY, 0-20100
nakuru, has been permitted to conduct
research in Nakuru County


on the topic: INFLUENCE OF
ADOLESCENCE DEVELOPMENTAL
CHANGES ON ACADEMIC PERFORMANCE
OF STUDENTS IN PUBLIC SECONDARY
SCHOOLS IN NAKURU MUNICIPALITY,
NAKURU COUNTY

for the period ending:
31st May, 2016

Permit No : NACOSTI/P/15/1150/6369
Date Of Issue : 17th August, 2015
Fee Received :Ksh. 1000



Applicant's Signature



Director General
National Commission for Science, Technology & Innovation



CONDITIONS

- 1. You must report to the County Commissioner and the County Education Officer of the area before embarking on your research. Failure to do that may lead to the cancellation of your permit**
- 2. Government Officers will not be interviewed without prior appointment.**
- 3. No questionnaire will be used unless it has been approved.**
- 4. Excavation, filming and collection of biological specimens are subject to further permission from the relevant Government Ministries.**
- 5. You are required to submit at least two(2) hard copies and one(1) soft copy of your final report.**
- 6. The Government of Kenya reserves the right to modify the conditions of this permit including its cancellation without notice.**


REPUBLIC OF KENYA


NACOSTI
National Commission for Science, Technology and Innovation

RESEARCH CLEARANCE PERMIT

6194
Serial No. A

CONDITIONS: see back page