

**EMOTIONAL PROBLEMS AND ITS
ASSOCIATION WITH INTERPERSONAL
RELATIONSHIPS AMONG IN-SCHOOL
ADOLESCENTS IN IBADAN, NIGERIA**

OJO Helen Oluwatimilehin

MATRIC NUMBER: 211713

**A RESEARCH PROJECT SUBMITTED TO THE CENTRE FOR CHILD AND
ADOLESCENT MENTAL HEALTH, IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE OF THE
UNIVERSITY OF IBADAN**

NOVEMBER, 2020

TABLE OF CONTENTS

TITLE PAGE	i
TABLE OF CONTENT	ii
LIST OF TABLES	vi
LIST OF APPENDICES	vii
KEY TO ABBREVIATIONS (Acronyms)	viii
ABSTRACT	ix
CHAPTER ONE	
INTRODUCTION	
1.1 Background	1
1.2 Statement of the problem	3
1.3 Justification and Relevance of the study	4
1.4 Aim of the study	4
1.5 Specific objectives	5
1.6 Research Questions	5
1.7 Primary outcome	5
CHAPTER TWO	
LITERATURE	6
2.1 Adolescence	6
2.2 The Period of Adolescence	6
2.2.1 Physical Development	7
2.2.3 Social and Emotional Development	7
2.3 Adolescent Interpersonal Relationships	8

2.3.1 Peer Relationships	9
2.3.2 Parent- Adolescent Relationships	10
2.3.3 Adolescent Romantic Relationships	11
2.3.4 Relationship with Adults outside the Family	12
2.4 Emotional Problems and Interpersonal Relationships	12
2.5 Concept of Emotional Problems	14
CHAPTER THREE	
METHODOLOGY	
3.1 Study Area	17
3.2 Study Design	18
3.3 Study Population	18
3.4 Sample size Calculation	18
3.5 Sampling Technique	19
3.6 Study Instruments	20
3.6.1 Modified Socio-Demographic Questionnaire	20
3.6.2 The Network of Relationship- Relationship Quality Version	20
3.6.3 Hospital Anxiety and Depression scale	21
3.6.4 Rosenberg self-esteem scale (RSES)	22
3.7 Validity of Study Instruments	22
3.8 Pre-test	23
3.9 Administration of study instruments	23
3.10 Study Procedure and Data Collection	24
3.11 Data Management and Analysis	24

3.12 Ethical considerations	25
-----------------------------	----

CHAPTER FOUR

RESULT

4.1 Socio- demographic characteristics of the study participants	26
4.2 Prevalence of emotional problems (depression, anxiety and low self-esteem) as experienced by the respondents	28
4.3 Association between socio-demographic characteristics and emotional problems	30
4.4 Association between Gender, school type and the qualities of different interpersonal relationships (best friend, romantic friend, mother and father relationships)	33
4.5 Association between gender, school type, age and class and the overall positive and negative qualities across interpersonal relationships	36
4.6 Logistic regression analysis of relationship qualities predictors on depression (best friend and romantic relationships)	38
4.7 Logistic regression analysis of relationship qualities predictors on depression (mother and father relationships)	40
4.8 Logistic regression analysis of relationship qualities predictors on anxiety (best friend and romantic relationships)	42
4.9 Logistic regression analysis of relationship qualities predictors on anxiety (mother and father relationships)	44
4.10 Logistic regression analysis of relationship qualities predictors on low self-esteem (best friend and romantic relationships)	46
4.11 Logistic regression analysis of relationship qualities predictors on low self-esteem (mother and father relationships)	48

CHAPER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 DISCUSSION	50
5.1.1 Socio-demographic characteristics of the study participants	50
5.1.2 Prevalence of Emotional Problems	51
5.1.3 Socio-demographic correlates of emotional problems	53
5.1.4 Gender and school type differences in the qualities of interpersonal relationships among best friend, romantic friend and parents	54
5.1.5 Association between the overall levels of positive and negative qualities with gender, age and school type	57
5.1.6 Relationship qualities predictors of emotional problems (depression, anxiety and low self-esteem)	59
5.2 Strength of the study	61
5.3 LIMITATION	61
5.4 Conclusion	62
5.5 Recommendations	62
REFERENCES	63
Appendix	69

TOTAL WORD COUNT: 11,878

LIST OF TABLES

Table 4.1	Socio demographic characteristics of the study participants	27
Table 4.2	Prevalence of emotional problems	29
Table 4.3	Association between socio-demographic factors and emotional problems	31
Table 4.3.1	Association between socio-demographic factors and emotional problems (cont'd)	32
Table 4.4	Association between gender, school type and the qualities of different interpersonal relationships (best-friend and romantic relationships)	34
Table 4.4.1	Association between gender, school type and the qualities of interpersonal relationships (mother and father relationships)	35
Table 4.5	Association between gender, school type , age and the overall levels of positive and negative qualities of interpersonal relationships	37
Table 4.6	Logistic regression analysis of relationship qualities predictors on depression (best-friend and romantic relationships)	39
Table 4.7	Logistic regression analysis of relationship qualities predictors on depression (mother and father relationships)	41
Table 4.8	Logistic regression analysis of relationship qualities predictors on anxiety (best-friend and romantic relationships)	43
Table 4.9	Logistic regression analysis of relationship qualities predictors on anxiety (mother and father relationships)	45
Table 4.10	Logistic regression analysis of relationship qualities predictors on low self-esteem (best-friend and romantic relationships)	47
Table 4.11	Logistic regression analysis of relationship qualities predictors on low self-esteem (mother and father relationships)	49

LIST OF APPENDICES

APPENDIX ONE: Informed Consent	69
APPENDIX TWO: Network of Relationship Inventory (Relationship Quality Version)	70
APPENDIX THREE: School Health Questionnaire	73
APPENDIX FOUR: Hospital Anxiety and Depression scale	80
APPENDIX FIVE: Rosenberg Self-Esteem scale	82

UNIVERSITY OF IBADAN LIBRARY

KEYS TO ABBREVIATIONS (ACRONYMS)

JSS- Junior Secondary School

LGA- Local Government Area

NRI-RQV- Network of Relationship Inventory- Relationship Quality version

NURHI- Nigerian Urban Reproductive Health Initiative

RSES- Rosenberg Self-Esteem Scale

SPSS- Statistical Package for Social Sciences

SSS- Senior Secondary School

WHO- World Health Organization

UNIVERSITY OF IBADAN LIBRARY

ABSTRACT

Background: Studies have shown that interpersonal relationships play a paramount role in the lives of adolescents and are thought to have an influence on many aspects of adolescent development. Interpersonal relationships is a fundamental human need, and the qualities of interpersonal relationships impact one's mental health negatively or positively. Interpersonal relationships that are very important during the period of adolescence include; best/close friendships, romantic relationships, and parental/family relationships. Positive qualities of interpersonal relationship such as support and intimacy have been associated with high academic performance, high self-esteem and less interpersonal problems. However negative qualities such as dominance and exclusion have been associated with increase in depressive symptoms, social anxiety, delinquent behaviours, low self-esteem, suicidal thoughts, withdrawal and poor academic performance. This study evaluated qualities in interpersonal relationships and their association with emotional problems (depression, anxiety and low self-esteem) among in-school adolescents.

Methodology: This was a cross-sectional study in which five schools were randomly selected from the twenty-nine schools in Ibadan North West local government. A total of 500 adolescents between ages 10-19 years were purposively selected from the five schools based on the number of students in each school. A socio-demographic questionnaire was used to elicit personal, family and school-related information from the students. The Network of Relationship- Relationship Quality Version questionnaire (NRI-RQV) was used to assess positive and negative qualities in each of the four relationships examined (best friend, mother, father and romantic relationships). The Hospital Anxiety and Depression scale (HADS) was used to asses for depression and Anxiety symptoms and the Rosenberg Self-esteem Scale (RSES) was used to assess self-esteem levels of the adolescents.

Results: A total of 500 respondents' participated, 68.2% were females and 32.8% were males. The age ranged between 11-19 years with the mean age of 14.63 ± 1.73 years. The reported prevalence of emotional problems among the respondents were: 20% of the adolescents had depression, 55.2% had anxiety and 27.4% had low self-esteem. Results showed girls reported significantly higher levels of intimacy, support and satisfaction with their best friend. Adolescents in private schools reported significantly higher levels of intimacy, pressure and satisfaction in their best friend relationships, they also reported significantly higher levels of companionship, satisfaction and approval with their mothers. Predictors of emotional problems in interpersonal relationships were satisfaction in best friend and romantic relationships, with high levels of satisfaction predicting low levels of depression and anxiety problems. Exclusion in mother-adolescent relationship was also a significant predictor of depression, with exclusion predicting higher levels of depressive and anxiety symptoms in adolescents.

Conclusion: This study revealed that both positive and negative qualities of interpersonal relationships were significantly associated with emotional problems. Therefore, this should be a baseline for planning interventions to help parents, peers and teachers in fostering positive interpersonal relationships among adolescents and promoting positive mental health.

Key words: Interpersonal relationships, Adolescents, Emotional problems

Word count: 464

CHAPTER ONE INTRODUCTION

1.1 BACKGROUND

Adolescence is a time of building and exploring social relationships. During this stage, young adolescents move away from parental authority and tend to turn to peers as a source of emotional support and companionship (McElhaney *et al.*, 2009). Adolescence is also the time when most individuals experience their first romantic relationships (Furman *et al.*, 2009). Studies have found that the formation and maintenance of stable interpersonal relationships is a fundamental human need and research findings have consistently indicated that poor quality relationships are linked to negative mental health outcomes in young people (Allen *et al.*, 2007; Branje *et al.*, 2010; La Greca & Harrison, 2005).

During the adolescence stage, individuals' relationships with their parents undergo change. The process of developing autonomy means they spend a decreasing amount of time with their parents and throughout this period a moderate degree of parent–adolescent conflict is normal (Santrock, 2003). Research suggests that conflict with parents is at its highest in early to middle adolescence and then decreases as the adolescent matures (De Goede *et al.*, 2009). Positive qualities in parent–adolescent relationships such as high levels of support (Helsen *et al.*, 2000; Jenkins *et al.*, 2002; Meadows *et al.*, 2006; Sheeber *et al.*, 2007), satisfaction and approval are associated with lower levels of depressive symptoms in young people. On the other hand, while some degree of conflict with parents is normal during adolescence, prolonged, intense and repeated conflict is frequently associated with poor psychological adjustment (Branje *et al.*, 2010; Sheeber *et al.*, 2007). Clearly, positive relationships are associated with companionship, disclosure, emotional support, approval and satisfaction while negative relationships are associated with conflict, criticism, pressure, dominance and exclusion (Furman & Buhrmesters, 2010).

Close friendships are regarded as the most important peer relationships formed during adolescence and most young people report having at least one close friend. Girls generally attribute positive quality in their relationships with friends than boys, reporting higher levels of support, approval and disclosure (Pagano & Hirsch, 2007) in these relationships.

Some studies have suggested that good quality peer relationships are important for psychological wellbeing in young people (Brown & Klute, 2003; La Greca & Harrison, 2005). And others even found that higher levels of intimacy in peer relationships were linked to better psychosocial outcomes. Also, lower levels of perceived intimacy, support and companionship in close friend relationships were linked to higher levels of social anxiety, this was also reported in a number of studies (Lopez, 1998).

Interpersonal relationships play an integral role in the lives of adolescents and are thought to have an influence on many aspects of adolescent development such as family relationships, peer relationships, identity development, academic performance and the development of sexuality (Furman & Shaffer, 2003). Romantic relationship is an important type of interpersonal relationship that adolescents take interest in. Girls tend to report higher levels of positive qualities such as intimacy (Connolly & McIsaac, 2011) and satisfaction in their romantic relationships than boys. Some studies suggest that boys perceive higher levels of conflict in romantic relationships (Haugen *et al.*, 2008). However, (Pagano and Hirsch, 2007) found that girls reported higher levels of hurtful conflict in their romantic relationships.

Common emotional problems include symptoms of anxiety and depression and these are most common mental health problems in childhood and adolescence (Evalillkarevold, 2008). Research indicates that the prevalence of emotional problems such as depression, and anxiety disorders

ranges from 16.5% to 40.8%, with girls exceeding boys in all age groups (Pathak *et al.*, 2011). Findings from population-based studies indicate that 12-19% of adolescents have string symptoms of emotional problems and that it has negative impact on daily functioning (Puura *et al.*, 1998; Egger & Angold, 2006).

Life time prevalence rate for major depression in adolescence ranges from 4% to 25% but most often the rates are around 15-20% (Kessler *et al.*, 2001). These problems interfere with the way they think, feel and act, thereby causing emotional distress and limiting their ability to carry out their day to day activities. Emotional problems have also been associated with substance misuse, poor interpersonal relationship relationships, violence and suicide (Arnett, 1999).

1.2 STATEMENT OF THE PROBLEM

The World Health Organization estimates shows that up to 20% adolescents have one or more mental and emotional problems at different stages in life (WHO, 2015). In Nigeria, about 10% to 20% of children and adolescent are affected (Omigbodun *et al.*, 2008). Depression and anxiety disorders are the most common disorders in adolescence and young adults (Costello *et al.*, 2003) and these problems affect adolescent relationship with their parents, peers and people around them. However, the qualities of interpersonal relationship can also pose a significant effect on adolescent mental health and studies have shown that negative qualities such criticism, exclusion, conflict associated with friendships, parent and romantic partners may be associated with depressive symptoms, low self-esteem and social anxiety (Davila, Steinberg, Kachadourian, Cobb, & Fincham, 2004; Grello, Welsh, & Harper, 2006; Joyner & Udry, 2000). In addition, adults who had interpersonal problems during adolescence appear to be at much greater risk for psychosocial difficulties during adulthood (Hansen *et al.*, 1995).

1.3 JUSTIFICATION AND RELEVANCE OF THE STUDY

Children and adolescent account for 50% of the Nigeria's general population (NHDS, 2017), the commonest emotional problems (depression and anxiety) affects about 10% to 20% of the Nigerian children and adolescents (Omigbodun *et al.*, 2008). Mental health problems, such as conduct problems and emotional difficulties displayed in adolescence, have long-term and pervasive effects into adulthood (Coleman *et al.*, 2009; Scott, Knapp, Henderson, & Maughan, 2001). As adolescents become increasingly autonomous, they begin to transfer their dependencies from their parents onto their peers and romantic partners (Allen, 2008), these relationships serve as safe havens, providing a secure base and emotional support (Zeifman & Hazan, 2008). However, studies have shown that these relationships can affect adolescence negatively. Negative mental health outcomes have been associated with poor interpersonal relationships and low level of support from families and friends in adolescence (Allen *et al.*, 2007). This study will contribute to the knowledge on adolescent interpersonal relationships and its relationship to emotional problems (depression, anxiety and low self-esteem), and serve as a baseline for planning interventions and to help parents, peers and teachers in fostering positive interpersonal relationships in promoting positive mental health.

1.4 AIM OF STUDY

This study aims to determine the association between qualities of interpersonal relationships and emotional problems among in-school adolescents.

1.5 SPECIFIC OBJECTIVES:

1. To determine the prevalence of emotional problems among in-school adolescents
2. To determine the socio-demographic correlates of emotional problems among in-school adolescents.
3. To determine the association between gender, school type and the qualities of different interpersonal relationships among in-school adolescents.
4. To determine the predictors of the qualities of interpersonal relationship and emotional problems (Depression, anxiety and low self-esteem).

1.6 RESEARCH QUESTIONS

1. What is the prevalence of emotional problems among in-school adolescent?
2. What are the socio-demographic factors associated with emotional problems among in-school adolescent?
3. Is there any association between gender, school type and the qualities of different interpersonal relationships among in-school adolescents?
4. Is there any association between relationship qualities predictors and emotional problems (depression, anxiety and low self-esteem) among in-school adolescents?

1.7 PRIMARY OUTCOME

The relationship between emotional problems and the qualities of interpersonal relationships among in-school adolescent.

Word count: 1213

CHAPTER TWO

LITERATURE REVIEW

2.1 Adolescence

Adolescence is from the Latin word *Adolescere*, meaning 'to go into adulthood' and it is a transitional phase between the age of 10 years to 19 years (Eccles *et al.*, 1993). During the period of adolescence, the child continues to grow physically, cognitively, and emotionally, changing from a child into an adult. At this stage, the adolescence seek to form their own identities, thereby developing important attachments with people other than their parents (Baumeister & Tice, 1986; Twenge, 2006). This period can be stressful for many children, as it involves new emotions, the need to develop new social relationships, and an increasing sense of responsibility and independence is necessary.

2.2 The period of adolescence

2.2.1 Physical Development

The physical development of adolescents begins with the onset of puberty, a developmental period in which hormonal changes causes rapid physical alterations in the body, culminating in sexual maturity. Although, the onset of puberty varies for individuals, but the average age range for reaching puberty is between 9 and 14 years for girls and between 10 and 17 years for boys (Marshall & Tanner, 1986).

The timing of puberty in adolescence can have significant psychological consequences. Adolescent boys who mature at an early stage, attain some social advantages because they are taller and stronger and, therefore, often more famous among their peers (Lynne *et al.*,

2007). However, early-maturing boys are at a greater risk of having conduct and emotional problems due to various anti-social behavior they engage in. Also, early-maturing girls may find their maturity stressful, particularly if they experience sexual harassment from their opposite peers (Mendle *et al.*, 2007). Early-maturing girls are at a higher risk of having a lower self-image, and higher rates of depression, anxiety, and disordered eating than their peers (Ge *et al.*, 1996).

2.2.2 Cognitive Development

Although the most rapid cognitive changes occur during childhood, the brain continues to develop throughout adolescence, and young adulthood (Weinberger *et al.*, 2005). The prefrontal cortex which is responsible for reasoning, planning, and problem solving in the brain, continues to develop as the adolescent matures (Goldberg, 2001).

However, due to the slower development of the prefrontal cortex than the emotional parts of the brain, most adolescents seem to act impulsively rather than rationally and this leads to many adolescents engaging in risky behaviours such as smoking, drug use, dangerous driving and unprotected sex and this is because they have not yet fully acquired the mental ability to make entirely rational judgements (Steinberg, 2007; Blakemore, 2008).

2.2.3 Social and Emotional Development

The social and emotional development of adolescents is best described in the contexts in which it occurs, that is, relating to peers, family, school, work, and community. Social development in adolescence involves the development of a sense of values and good behaviour when dealing with others (Eisenberg *et al.*, 1995). Emotional development during adolescence involves the way the individual thinks, feels and behaves in the context of relating to others and learning to cope with

life's stresses and the ability to manage emotions. Identity formation is an important part in adolescence social and emotional development and this refers to more than just how adolescents see themselves right now, it also includes what has been termed the "possible self"—what individuals might become and who they would like to become (Markus & Nurius, 1986). Establishing a sense of identity has traditionally been thought of as the central task of adolescence (Erikson, 1968), and identity formation continues to develop throughout an individual life time. Also, in the social matrix of the adolescents there is an obvious shift of more affiliation to the 'world' of his or peer group, however this doesn't negate the importance of family relationship to the adolescent (O'koon, 1997). The family closeness and parental attachment is a stabilizing factor that deters the adolescent from the occurrence of depressive disorder and in engaging in peer pressured risky behaviours like early sexual exploration, substance abuse and suicidal attempts (Resnick *et al.*, 1997).

2.3 Adolescent Interpersonal Relationships

The term interpersonal relationships is explained in different ways but all are pointing to the same meaning. The term interpersonal relationship is defined as a strong, deep or close association and acquaintance between two or more people that may range from duration to enduring. This association may be based on love, inference or solidarity. The context can vary from family or friendship, work, neighbourhood and places of worship (Berschild, 1999).

Types of adolescent interpersonal relationships include:

2.3.1 Peer Relationships

One of the most significant changes in adolescence is that the hub around which the adolescent's world revolves shifts from the family to the peer group. It is important to note that this decreased frequency of contact with family does not mean that family closeness has assumed less importance for the adolescent (O'Koon, 1997). In fact, family closeness and attachment has recently been confirmed as the most important factor associated with less anxiety, depression, enhances the adolescent self-esteem and fewer suicide attempts among adolescents (Resnick, *et al.*, 1997). Peer groups also serve a number of important functions throughout adolescence, they increasingly rely on their peers, especially on close friends, for companionship, intimacy and support (Brown and Larson 2009; De Geode *et al.*, 2009). One important function of peers in adolescence is thought to support the individuation process related to developing independence from parents and developing a separate identity. Another important function of peer group is to provide adolescents with a source of information about the world outside of the family and about themselves (Santrock, 2001). Peer groups also serve as powerful reinforcers during adolescence as sources of popularity, status, prestige, and acceptance.

During middle adolescence (ages 14-16 years), peer groups tend to be more gender mixed. Less conformity and more tolerance of individual differences in appearance, beliefs, and feelings. By late adolescence, peer groups have often been replaced by more intimate relationships, such as one-on-one friendships and romances, which have grown in importance as the adolescent has matured (Micucci, 1998). Adolescents vary in the number of friends that they have and in how they spend time with their friends. Introverted adolescents tend to have fewer but closer friendships, and boys and girls differ with regard to the kinds of activities they engage in most

frequently with their friends. In general, boys tend to engage in more action-oriented pursuits, and girls spend more time talking together (Smith, 1997). Some studies have also shown that adolescent girls value intimacy, the feeling that one can freely share one's private thoughts and feelings, as a primary quality in friendship (Bakken & Romig, 1992; Claes, 1992; Clark & Ayers, 1993). Boys also speak of the high importance of intimacy in friendship (Pollack & Shuster, 2000). For adolescents who lack social skills, adults who informally coach them in the appropriate skill areas can be lifesavers. Discussions about how to initiate conversations with peers, give genuine compliments, be a good listener, share private information appropriately, and keep confidences can go a long way toward enhancing good social and interpersonal skills.

2.3.2 Parent-Adolescent Relationships

Adolescence marks a rapid change in one's role within a family and it brings about significant transformations in the relationship with parents as individuals begin to develop autonomy from their parents (Kenny *et al.*, 2013; Seiffge-krenke *et al.*, 2010). As the adolescence grow older, there is a decline in the warmth and intimacy of the adolescent-parent relationship, with adolescence reporting a decrease in feelings of support, closeness and intimacy (McGue *et al.*, 2005). Adolescents spend progressively less time with parents and family and more time with friends (McRlhaney *et al.*, 2009) and a decline is accompanied by adolescents request for greater privacy and reduced self-disclosure to parents (Keijsers *et al.*, 2009). During the puberty stage, there is often a significant increase in parent-child conflict and a less cohesive familial bond. Parent-adolescent disagreement also increases as friends demonstrate a greater impact on one another, new influences on the adolescent that may be in opposition to parents' values. Although conflicts between children and parents increase during adolescence, but prolonged and intense

conflict has been associated with depressive symptoms and self-esteem issues (Jenkins *et al.*, 2002). Also studies have shown that a robust and warm relationship with one's parent enhances adolescent's self-esteem, increase in academic achievement and help to form interpersonal skills with people outside the home.

2.3.3 Adolescent Romantic Relationships

Dating during adolescence is an important stage in people's lives. In spending time with a current or potential girlfriend or boyfriend, adolescents are developing their romantic and sexual identities, which set the stage for their adult relationships. Dating during adolescence is common, although research suggests that the terms "hanging out" or "going with someone" have replaced the term "dating" for many adolescents. Research indicates dating starts between 12 and 14 years of age, with more serious relationships usually reserved for the later teen years. Half of all teens report having been in a dating relationship, and nearly one-third of all teens said they have been in a serious relationship (Collins *et al.*, 2009; Furman, Brown, & Feiring, 1999; Sorensen, 2007). Dating varies across racial/ethnic groups. For example, studies have shown that white adolescents are generally more likely to be in dating relationships than are black and Hispanic adolescents (this may be due to cultural issues among the blacks).

Healthy adolescent romantic relationships can be characterized as including teens who are relatively close in age who develop open communication, high levels of honesty and trust, mutual respect, appropriate compromise, mutual understanding, and encourage each other's individuality. Among other benefits, such relationships are viewed as providing emotional support, intimacy, affection and enhancing interpersonal skills (Sorensen, 2007; Debnam *et al.*, 2014). Adolescents learn that romantic relationships form the foundation for other more committed romantic

relationships in adulthood and are influential for psychological wellbeing (Overbeck et al., 2007). The links between romantic experiences and adolescent adjustment have been shown to vary according to both timing and degree of romantic involvement and the quality of the romantic relationships (la Greca & Harrison, 2005; Davies & Windle 2000).

2.3.4 Relationships with Adults outside the Family

Teens' relationships with adults outside their families such as teachers, mentors, neighbours, and unrelated adults who may be called "aunts" or "uncles"– can promote their social development. Respected older adults can teach social skills, model behaviour, give positive or negative reinforcement, and introduce young people to diverse social interactions and contexts (Schirm *et al.*, 1995). These relationships can also provide emotional support, companionship, opportunities for socialization, and even real-life examples of positive social relationships that teens may not find at home (Larkin, E., 1999). Teens who have friendships with adults outside their families, feel supported (Rhodes *et al.*, 1994) are more social (Zahn-waxler *et al.*, 1992) and less depressed (Rhodes *et al.*, 1999) and get along better with their parents (Rhodes *et al.*, 2000). Perhaps one of the most important roles played by other adults is that they are additional figures in the teen's life with whom he or she can establish a secure emotional bond (Hightower, E., 1990). Such bonds have been associated with better skills overall, through the development of trust, compassion, and self-esteem, among other qualities (Rhodes *et al.*, 2000; Schirm *et al.*, 1995).

2.4 EMOTIONAL PROBLEMS AND INTERPERSONAL RELATIONSHIPS

Adolescent depression and other mental health problems have been associated with adverse situations, deficits in social skills and psychosocial malfunction, such as poor academic

performance, poor participation in recreational activities and with poor interpersonal relationships (Lewinsohn *et al.*, 1995; Nilsen *et al.*, 2013; Singh *et al.*, 2015).

However, studies have also suggested that the maintenance of stable interpersonal relationships are fundamental to adolescents' quality of life (Baumeister & Leary, 1995). On the contrary, poor quality relationships and low levels of support and care from family and friends are associated with negative results in adolescents' mental health (Allen *et al.*, 2007; Branje *et al.*, 2010), also being predictors of an increase in depressive symptoms in adolescence (Bogard, 2005; Nilsen *et al.*, 2013). It has been found that negative family interactions may be relatively stable over time and can make children and adolescents more vulnerable to depression, anxiety and low self-esteem (Hauenstein, 2003).

In addition to addressing the importance of the relationships established with parents in adolescence, other studies have also investigated about friendship, stressing the importance of positive qualities such as intimacy, support companionship and approval in this relationship. These qualities have been studied in relation to parents, friends and dating relationships (Marques, 2013; Matos, Pinheiro & Marques, 2013; Neves & Pinheiro, 2009). Research points out that friendship throughout adolescence becomes more intimate and loving (Levpušček, 2006; Liu, 2006) and that the quality of friendships is associated with high levels of intimacy, support, companionship and satisfaction, positively influencing self-esteem and psychosocial adjustment in adolescents (Bogard, 2005). Thus, we can predict that friendships may have a protective function of mental health (Kenny, Dooley & Fitzgerald, 2013). However, despite the benefits that they undoubtedly entail, friendships and romantic relationships may have negative features, such as: low levels of perceived intimacy, less support and companionship, increased levels of conflict, pressure and

exclusion (La Greca & Harrison, 2005). Negative characteristics are associated with higher levels of depressive symptoms, anxiety, problems of self-esteem, low school performance, less social participation and more interpersonal issues (Kenny, Dooley & Fitzgerald, 2013; La Greca & Harrison, 2005).

2.5 CONCEPT OF EMOTIONAL PROBLEMS

Emotional problems refers to symptoms of anxiety and depression, such as sadness, loneliness, worrying, feelings of worthlessness and anxiousness. It is characterized by reduced level of functioning in relation to family and friends, school achievements and general wellbeing (Karevold, 2008). They are classified into two broad categories, emotional (internalizing) and behavioural (externalizing) problems (Kovacs & Delvin, 1998). Studies have shown that depression and anxiety are most common emotional disorders in childhood and adolescence (Costello *et al.*, 2003). Childhood emotional problems have a prognostic value for problems resulting in adolescence and this can increase the risk for psychiatric disorders later in the life of the adolescent (Karevold, 2008).

In DSM-IV, a major depressive disorder is characterized of at least two weeks of depressed mood or loss of interest accompanied by at least four additional symptoms of depression (DSM-IV, p.317). The core symptoms in a Major Depressive Episode for children and adolescents include:

1. Feelings of sadness or emptiness
2. Irritable mood
3. Social withdrawal or diminished interest in nearly all activities
4. Significant and unexpected weight changes or somatic complaints

5. Psychometric agitation or retardation
6. Fatigue or loss of energy
7. Feelings of worthlessness or excessive guilt
8. Lack of concentration
9. Suicidal thoughts (DSM IV, 2000)

Graber (2004) observed that adolescent girls always have higher rates of depression than adolescent boys. Also, gender differences may be linked to biological changes coupled with puberty or to the ways girls socialize and their greater vulnerability to stress in social relationships.

Anxiety disorders consist of separation anxiety, social phobia, generalized anxiety disorder, specific phobias and obsessive-compulsive disorder. Separation anxiety disorder, generalized anxiety disorder and phobias are the most common in childhood and adolescence (Costello *et al.*, 2005; Merikangas, 2005; Axelson & Birmaher, 2001). Anxiety disorder and its manifestations across development are broadly understudied. This reflects the belief that anxiety disorder constitutes mild psychopathology. One of the major concerns regarding anxiety is the definition of impairment, with unclear boundaries between 'normal' and 'abnormal' anxious symptoms (Karevold, 2008).

Self-esteem is an assessment of a person's feelings of self-acceptance and self-worth (Rosenberg 1965). High self-esteem reflects a greater tendency to like, value, and accept oneself (Rosenberg, 1995) and has been found to have positive consequences on people's lives. Studies have shown that high self-esteem is associated with a directive range of positive outcomes such as high levels of psychological well-being, physical health, less stressful events, and more social support (Orth *et al.*, 2012). In contrast, low levels of self-esteem have been linked with anxiety problems,

depression, substance abuse (Emler, 2001). Self-esteem fluctuates during childhood and adolescence, when children reach adolescence, their levels of self-esteem may drop before they gradually rise between middle adolescence to young adulthood (Orth and Robins, 2014).

Word count: 2682

UNIVERSITY OF IBADAN LIBRARY

CHAPTER THREE METHODOLOGY

3.1 STUDY AREA

This study was carried out in the city of Ibadan, southwest Nigeria. Ibadan is the capital of Oyo state and the largest indigenous city in Nigeria, with a population of about 6 million (World Population Review, 2018). Ibadan city comprises of 5 urban local governments area (LGAs). There is a larger area described as Greater Ibadan, made up of eleven (11) LGAs consisting of the 5 urban LGAs (Ibadan city) and 6 semi-urban LGAs. According to the Nigerian Urban Reproductive health initiative (NURHI), the city is dominated by people of Yoruba ethnicity (NURHI, 2018). The system of education in Ibadan city follows the general pattern in the country. Typically, children begin education at about 6 years of age, and spend 6 years in primary school, before proceeding to junior secondary school (JSS). Three years are spent in JSS and another three years in senior secondary school (SSS), after which students may proceed to tertiary institutions. Ibadan northwest LGA was purposively selected from the 5 urban LGAs. The headquarters of Ibadan Northwest LGA has an area of 26km² and a population of about 173,359.

Schools are open for academic work for three terms, consisting of three (3months) each in one academic year. Schools in Ibadan are open for academic work within the hours of 8am-2pm, five days a week (Mondays- Fridays). Most secondary schools in Ibadan have a junior section for adolescents between age 11 and 16 years, and a senior secondary section, between ages 16-19 years.

Within Ibadan metropolis, there are primary, secondary and tertiary institution that caters for the educational needs of the populace. In Ibadan North West local government, three public schools (2 co-educational and 1 single-sex) were selected from the list of 13 registered public schools and

two private schools (2 co-educational) were selected from the list of 16 registered private schools. The public schools are run by the state government and mostly tuition free while the private schools are run by private individuals or organisations and fees are charged which vary based on parent's ability to pay.

3.2 STUDY DESIGN

This study was a cross sectional descriptive study. Self –administered questionnaires were used for data collection.

3.3 STUDY POPULATION

Adolescent secondary school students aged 10-19 years in Ibadan North West local government metropolis who met the inclusion criteria were the study participants.

Inclusion criteria:

- Adolescent between age 10-19 years

Exclusion criteria:

- Students who are too ill to participate

3.4 SAMPLE SIZE CALCULATION

Sample size was calculated using the formula for the estimation of a single proportion and using the estimated prevalence of emotional problem (depression) of 23.8% obtained by (Adeniyi 2011) as follows;

$$n = Z_a^2 pq / d^2 \quad (\text{Kish, 1965})$$

Where;

n= minimum calculated sample size

p= prevalence of emotional problem in adolescents set at 23% (0.238)

d= degree of precision (4%)... the degree of precision is reduced in order to get a higher sample size

q= (1-p)

z= standard deviation for 95 % confidence interval in a normal curve

$n = 1.96^2 \frac{0.238 \times 0.762}{4^2}$

n= 435.44

So using a non-response rate of 10%, n=480

3.5 SAMPLING TECHNIQUE

This study employed a three-stage sampling technique.

The stages are explained below:

Stage 1: Secondary schools in Ibadan northwest local government were purposively selected. The choice of secondary schools in the Ibadan northwest LGA was an attempt to avoid respondent fatigue, reduce respondent bias and enable valid and honest responses. This is because this LGA is far from any tertiary institution and hence may not have been a frequent research area.

Stage 2: Five schools were randomly selected from the list of all private and public schools in Ibadan north-west local government area respectively. Three public schools (2 co-educational, and one single-sex school) and two private schools (co-educational) were selected, and the population of students in each schools was obtained. The participating schools were: Eleyele High School- a

mixed public secondary school; Onireke girls' high school -a single gender (girls only) public secondary school; Urban day secondary school- a mixed public secondary school; Foweb College- a mixed private secondary school and Seed of life college- a mixed private secondary school.

Stage 3: the total number of respondents to be selected from each school was computed based on the proportion of each school's population. In each of the selected schools, all consenting students between 10 and 19 years of age in the selected schools were selected from JSS2 to SS3 using simple random sampling. JSS1 students were excluded because they may not be able to comprehend the questions properly.

3.6.0 STUDY INSTRUMENTS

The following instruments was employed in collecting information from the study participants.

3.6.1 Modified Socio-Demographic Questionnaire

An adapted version of the questionnaire used by (Omigbodun *et al.*, 2008) in a study conducted among adolescents in rural and urban Ibadan was employed in collecting information about relevant socio-demographic variables of relevance to this study. The questionnaire originally seeks to elicit personal, family and school-related information.

3.6.2 The Network of Relationships—Relationship Quality Version (NRI-RQV)

The relationship quality version was adapted for this study. It is one of the three versions of the network of relationship inventory which was developed to examine the characteristics of a range of interpersonal relationships in adolescents (Furman and Buhrmester, 1985). It is a 30-item scale containing ten subscales with three items per subscale. The scale assesses five positive qualities of relationships (companionship, disclosure, emotional support, approval and satisfaction) and five

negative features (conflict, criticism, pressure, exclusion and dominance) (Furman and Buhrmester, 2010). Responses were made on a five-point likert scale ranging from “Never (1)” to “Always (5). The score for each subscale is calculated by obtaining the mean of the three items of that given subscale. The overall scores for positive and negative qualities is calculated by obtaining the mean of positive and negative subscales (given a score range between 1 and 5). A higher mean score indicates that the given quality is higher (for example, support or conflict in interpersonal relationships). The scale was used to assess qualities in best friend, mother, father and romantic relationships. A romantic partner was defined as “someone you are physically/emotionally attracted to that you consider to be more than just a friend and that you go out on dates with”. The network of relationships inventory (relationship quality version) has been used in Africa (South Africa) in adolescents’ studies (Rawatlal *et al.*, 2015). The NRI-RV has demonstrated acceptable internal reliability and validity in several adolescents studies (Furman *et al.*, 2010), and previous studies have indicated an acceptable level of internal reliability, with Cronbach’s alpha values ranging from 0.82 to 0.93 (Hibbard & Buhrmester, 2010).

3.6.3 Hospital Anxiety and Depression Scale

The hospital anxiety and depression scale is a 14-item scale (with each of the anxiety and depressive subscale consisting of seven (7) items) that is used to quantitatively evaluate anxiety and depressive symptoms (Zigmond, 1983). Each item is rated on a 4-point likert scale (0 to 3) scale. The cumulative score on each subscale ranges from 0 to 21. In this study, a cut-off score of 8 and above was used to identify symptoms of depression and anxiety (Abiodun, 1994). The HADS scores were categorized into two: 0-7 and 8 and above. Respondents scoring more than 8 and above were considered as likely to have depression or anxiety disorder. The reliability and validity as a

screening tool for anxiety and depressive disorders have been reported to be adequate among the non-clinical and clinical population in Nigeria (Abiodun, 1994).

3.6.4 Rosenberg self-esteem scale (RSES)

The Rosenberg self-esteem scale is a 10-item scale that measure global self-worth by measuring both positive and negative feelings about oneself (Rosenberg, 1965). It is a self-report measure that has been validated for use here in Nigeria (Okoiye, Nwoga, & Onah, 2015). The instrument consists of 10 items (5 positive and 5 negative) measured on a 4-point Likert scale, with the negative items being reversed scored. The responses are score thus: 0=strongly disagree, 1=disagree, 2=agree, and 3=strongly agree. Minimum score is 0, while maximum score is between 30. A score less than 15 suggests a low self-esteem.

3.7 Validity of Study Instruments

The English and Yoruba version of the socio-demographic questionnaire have been validated among secondary school students in Nigeria (Omigbodun *et al.*, 2008). Both the English and Yoruba version of the Rosenberg self-esteem scale has been validated for use among secondary school students (Oshodi *et al.*, 2014). The English version of the network of relationship inventory (quality version) was adapted for this study and it has been used in different research on relationships, for example (The company they keep: Friendships in childhood and adolescence (pp. 41-65), Cambridge, MA: Cambridge University Press; Furman, W. & Buhrmester, D. (2009), although the instrument has been validated and used in a South Africa study (RawatlaL *et al.*, 2015), but it was modified before administering. In addition, a pre-test was conducted among secondary school students in a local government different from the participating local government,

and the necessary amendments was made based on the findings from the pre-test which is further explained in the next section.

3.8 PRE-TEST

For the purpose of this study, a pre-test study was conducted on 30 students in public and private schools in another local government area. This was to ensure the instruments and procedure was satisfactory and understandable and to identify any likely issues that needed to be addressed before the main study was done. The English version of the network of relationship inventory (quality version) were modified for easy understanding by some of the students, an English teacher and the researcher, before it was back-translated. For example “*how often do you spend fun time with these people*” was modified to “*how often do these people spend time with you*”, “*how often do you tell these people everything you are going through*” was modified to “*how often do you tell these people everything on your mind*”. Some of the questions on the hospital anxiety and depression scale (HADS) and Rosenberg self-esteem scale were also modified. Further assurance was give that the information gotten in the study was strictly confidential and met for research purpose only.

3.9 Administration of Study Instruments

A self- report method was used in obtaining the relevant questions from study participants. One research assistant were properly trained assisted in administering the questionnaires. Adequate preparation was made in conjunction with the school authorities to ensure that suitable time and venue for this activity are secured. Respondents were asked not to provide their names or any other identifying details, as this should help to allay fears bordered on issues of confidentiality, thus allowing for more honest responses.

3.10 STUDY PROCEDURE and DATA COLLECTION

After having obtained the requisite permission from the ministry of education and ministry of health, the authorities of each of the participating schools was approached, and the nature of the research and the procedure was explained. Upon securing the approval of the schools, the study participants was selected with the use of the sampling technique highlighted above. Only one research assistant was recruited for this study, although some of the school teachers of each participating schools also assisted in the distribution and collection of questionnaire. A self-report approach was employed in retrieving the needed information from the participants with guidance from the researcher. Efforts was made to ensure that a high response rate was achieved. The interview was conducted in their various classrooms based on the time schedule by the school authorities, due to the fact that it was close to the JSS3 and SS3 mock examinations, the data process was completed for about 6 weeks.

3.11 DATA MANAGEMENT AND ANALYSIS

Each questionnaire was given a unique number and each item on the questionnaire was appropriately coded before entering them into the data analysis software. Data was cleaned and analysed using Statistically Package for Social Sciences (SPSS) version 20. Percentage and frequencies count was used to describe the socio-demographic characteristics of the respondents (e.g. sex, type of school), as well as the prevalence of emotional disorders in the study population. The association between socio-demographic variables and emotional problems (anxiety, depression and low self-esteem) were analysed using the chi-square test, while Independent t-test was used in comparing mean scores in each of the ten (10) qualities across the four relationships examined. Analysis of variance was also used to investigate the association between the overall

positive and negative qualities of interpersonal relationships with gender, age and school type. Binary logistic regression was used to determine which of the ten qualities predicted depression, anxiety and low self-esteem.

3.12 ETHICAL CONSIDERATIONS

Ethical approval was obtained from the Oyo state ministry of health ethical review board (ERB), and permission was obtained from the state ministry of education and the school authorities. The study participants were assured that all data collected from them will be kept confidential. Informed consent forms were signed by all respondents aged 11-19 years after explaining to them the purpose of this study. The procedure did not involve any major risk that could cause any physical harm or psychological harm as only interviews were conducted.

The participants were informed of the potential benefits of the study which includes recommendation for adolescent mental health services and access to interventions such as provision of psychological therapies. The participants were also informed that participation was voluntary and that they could withdraw from the study at any point, and they could decline to answer any question.

Word count: 2234

CHAPTER FOUR

RESULTS

This study aimed to determine the association between emotional problems and the qualities of interpersonal relationships among in-school adolescents in Ibadan northwest local government area, Oyo state, Nigeria. A total of 500 participants were recruited into the study and all returned completed questionnaire. The analyses of the findings are presented as follows:

1. Socio-demographic characteristics of the study participants
2. Prevalence of emotional problems (depression, anxiety and low self-esteem)
3. Socio-demographic correlates of emotional problems (depression, anxiety and low self-esteem)
4. Association between gender, school type and the qualities of different interpersonal relationships (best friend, romantic friend, mother and father)
5. Association between gender, age, school type and the overall levels of positive and negative qualities of different interpersonal relationships (best friend, romantic friend, mother and father)
6. Binary logistic regression analysis of relationship qualities predictor variables with emotional problem

4.1 Socio-demographic characteristics of the study participants

In this study, the total number of respondents sampled was 500 of which a total of 117 (23.4%) of the respondents attended private school and 383 (76.6%) were from public school. Majority of the respondents were females 381 (68.2%). The mean age of the respondents was 14.63 ± 1.73 years of which 228 (45.6%) and 272 (54.4%) were within ages 11-14 years and 15-19 years respectively. A total number of 390 (78.0%) respondents were from monogamous home and 410 (82.0%) of the respondents were living with their parents.

Results are shown in table 4.1 below;

Table 4.1: Personal and family characteristics of the respondents

Characteristics	Private school (n=117) n(%)	Public school (n=383) n(%)	Total (N=500) n(%)
Gender			
Male	49(41.9)	110(28.7)	159(31.8)
Female	68(58.1)	273(71.3)	341 (68.2)
Age			
11-14	85(72.6)	143(37.3)	228(45.6)
15-19	32(27.4)	240(62.7)	272(54.4)
Mean±SD:	13.37±1.42	15.01±1.63	14.63±1.73
Class of the students			
Junior school	66(56.4)	79(20.6)	145(29.0)
Senior school	51(43.6)	304(79.4)	355(71.0)
Religion			
Islam	22(18.8)	123(32.1)	145(29.0)
Orthodox Christian	42(35.8)	119(31.1)	161(32.2)
Pentecostal Christian	53(45.4)	141(36.8)	194(38.8)
Family type			
Monogamous	110(94.0)	280(73.1)	390(78.0)
Others*	7(6.0)	103(26.9)	110(22.0)
Parent's marital status			
Married	109(93.1)	313(81.7)	422(84.4)
Others**	8(6.9)	70(18.3)	78(15.6)
Presently living with			
Parents	107(91.5)	303(79.1)	410(82.0)
Others***	10(8.5)	80(20.9)	90(18.0)
Brought up from childhood			
Parents	113(96.5)	354(92.4)	467(93.4)
Others****	4(3.4)	29(7.6)	33(6.6)
Level of father's education			
Primary and below	0(0.0)	28(7.3)	28(5.6)
Secondary and above	117(23.4)	355(92.7)	472(94.4)
Level of mother's education			
Primary and below	1(0.9)	21(5.5)	22(4.4)
Secondary and above	116(99.1)	362(94.5)	478(95.6)

Others*: polygamous, widowed mother, widowed father

Others**: separated,mother only

Others***: mother,grandparents, aunty

Others****:mother, grandparents, grandmother,aunty

4.2 Prevalence of emotional problems (depression, anxiety and low self-esteem) as experienced by the respondents

Prevalence of Depression

A total of 100 (20.0%) of the respondents met the cut-off of 8 on the HADS for depressive symptoms while 400 (80.0%) of the respondents were below.... See table 4.2

Prevalence of Anxiety

A total of 276 (55.2%) of the respondents met the cut-off on the HADS for anxiety symptoms, while 224 (44.8%) of the respondents were below.... See table 4.2

Prevalence of Low self-esteem

The prevalence of low self-esteem in this study was 127 (27.4%).... See table 4.2

Table 4.2: Prevalence of emotional problems among study participants

Emotional problems	N (%)
Depression	
Absence of depression	400 (80%)
Presence of depression	100(20%)
Anxiety	
Absence of Anxiety	224 (44.8%)
Presence of Anxiety	276 (55.2%)
Self-esteem	
High self-esteem	363(72.6%)
Low self-esteem	137 (27.4%)

UNIVERSITY OF IBADAN LIBRARY

4.3 Association between socio-demographic characteristics and emotional problems

Association between socio-demographic characteristic and depressive symptoms

The prevalence of depressive symptoms among adolescents between ages 11-14 years was 13.6%, compared to 25.4% of those aged 15-19 years which was statistically significant ($p=0.001$). Gender difference in prevalence of depression (18.2% of males compared to 23.9% of females) was not significant ($p=0.137$). Adolescents in public schools had a higher prevalence of depressive symptoms (22.2%) compared to those in private schools (12.8%) and this difference was significant ($p=0.027$). Respondents from polygamous families had higher rates of depressive symptoms (38.2%) than those from monogamous homes (14.9%) and this was statistically significant ($p<0.001$). See table 4.3

Association between socio-demographic characteristics and anxiety symptoms

Result showed that 50% of adolescents who were from a monogamous home had anxiety symptoms, while 73.6% of the adolescents, who were from (polygamous homes, or having a widowed father or mother) had anxiety symptoms ($p=0.001$)....See table 4.3

Socio-demographic characteristics and low self-esteem

Result showed that 17.9% of adolescents who attended private schools had low self-esteem, while 30.3% of the adolescents in public schools had low self-esteem ($p=0.009$)....See table 4.3

Table 4.3: Association between socio-demographic factors and emotional problems (Depression, anxiety and low self-esteem)

Variables	Depression			Anxiety			Self esteem		
	Not depressed N(%)	Depressed N(%)	p-value	Not anxious N(%)	anxious N(%)	p-value	High N(%)	Low N(%)	p-value
Gender									
Male	121(81.8)	38(18.2)	0.137	65(46.6)	94(53.4)	0.229	115(31.7)	34(32.1)	0.926
Female	279(76.1)	62(23.9)		159(40.9)	182(59.1)		258(68.3)	93(67.9)	
Age									
11-14	197(86.4)	31(13.6)	<0.001*	104(46.4)	124(44.9)	0.738	171(47.1)	57(41.6)	0.271
15-19	203(74.6)	69(25.4)		120(53.6)	152(55.1)		192(52.9)	80(58.4)	
School type									
Private	102(87.2)	15(12.8)	0.027*	46(20.5)	71(25.7)	0.173	96(82.1)	21(17.9)	0.009*
Public	298(77.8)	85(22.2)		178(79.5)	205(74.3)		267(69.7)	116(30.3)	
Class									
Junior school	127(87.6)	18(12.4)	0.007*	62(27.7)	83(30.1)	0.557	102(70.3)	43(29.7)	0.470
Senior school	273(76.9)	82(23.1)		162(72.3)	193(69.9)		261(73.5)	94(26.5)	
Family type									
Monogamous	332(85.1)	58(14.9)	<0.001*	195(50.0)	195(50.0)	0.001*	293(75.1)	97(24.9)	0.017*
Others	68(61.8)	42(38.2)		29(26.4)	81(73.6)		70(63.6)	40(36.4)	

Table 4.3.1: Association between socio-demographic factors and emotional problems cont'd (Depression, anxiety and low self-esteem)

Variables	Depression			Anxiety			Self esteem		
	Not depressed N(%)	Depressed N(%)	p-value	Not anxious N(%)	anxious N(%)	p-value	High N(%)	Low N(%)	p-value
Parent marital status									
Married	357(84.6)	65(15.4)	0.004*	204(48.3)	218(51.7)	0.001*	313(74.2)	109(25.8)	0.047*
Others	43(55.1)	35(44.9)		20(25.6)	58(74.4)		50(64.1)	28(35.9)	
Living with presently									
Parents	348(84.9)	62(15.1)	0.001*	200(51.2)	200(48.8)	0.032*	304(74.1)	106(25.9)	0.098
Others	52(57.8)	38(42.2)		24(26.7)	66(73.3)		59(65.6)	31(34.4)	
Brought up									
Parents	380(81.4)	87(18.6)	0.004*	214(45.8)	253(54.2)	0.083	342(73.2)	125(26.8)	0.232
Others	20(60.6)	13(39.4)		10(30.3)	23(69.7)		21(63.6)	12(36.4)	
Father's education									
Primary and below	19(67.9)	9(32.1)	0.098	9(32.1)	19(67.9)	0.166	18(64.3)	10(35.7)	0.310
Secondary and above	381(80.7)	91(19.3)		215(45.6)	257(54.4)		345(73.1)	127(26.9)	
Mother's education									
Primary and below	14(63.6)	8(36.4)	0.052	9(40.9)	13(59.1)	0.707	17(4.7)	5(3.6)	0.615
Secondary and above	386(80.8)	92(19.2)		215(45.0)	263(55.0)		346(95.3)	132(96.4)	

4.4 Association between Gender, school type and the qualities of different interpersonal relationships (best friend, romantic friend, mother and father relationships).

Best friend relationship:

By gender, girls had significantly higher mean scores on intimacy, satisfaction and emotional support with their best friend while boys had significantly higher mean scores on pressure, criticism and dominance in this relationship See table 4.4

By school type, students in private schools had significantly higher mean scores on intimacy, pressure and satisfaction in their best friend relationships, whereas students in public schools significantly had higher mean scores on dominance in this relationships..... See table 4.4

Romantic relationship:

By gender, boys had significantly higher mean scores on intimacy, satisfaction and companionship, while girls significantly higher mean scores on pressure, conflict, exclusion and dominance in this relationship See table 4.4

By school type, there was no significant difference between private and public schools on both positive and negative qualities.... See table 4.4

Mother relationship:

By gender, girls had significantly higher mean scores on intimacy, while boys had significantly higher mean scores on pressure, criticism and exclusion See table 4.4.1

By school type, students in public schools had significantly higher mean scores on criticism and exclusion in this relationship. Students in private schools had significantly higher mean scores on companionship, pressure, satisfaction and approval..... See table 4.4.1

Father relationship:

By school type, students in public schools had significantly higher mean scores on criticism, while students in private schools had significantly higher mean scores on companionship, intimacy and pressure in this relationship.... See table 4.4.1

By gender, boys had significantly higher mean scores on pressure and criticism... See table 4.4.1

Table 4.4: Association between gender, school type and the qualities of different interpersonal relationships (best friend and romantic relationships)

IR	School type		F-value	Source of difference	Gender		F-value	Source of difference
	Private (n=117) Mean±SD	Public (n=383) Mean±SD			Boys (n=159) Mean±SD	Girls (n=341) Mean±SD		
Best friend								
Companionship	3.27±0.87	3.17±0.82	1.34	Private>public	3.15±0.84	3.21±0.83	0.51	girls>boys
Intimate disclosure	2.82±1.04	2.63±0.87	4.46*	Private>public	2.59±0.90	2.71±0.92	3.80*	girls>boys
Pressure	1.81±0.82	1.44±0.54	34.0*	Private>public	1.73±0.68	1.43±0.59	25.47*	boys>girls
Satisfaction	3.67±1.02	3.33±0.91	12.0*	Private>public	3.28±0.86	3.47±0.97	4.48*	girls>boys
Conflict	2.62±0.90	2.70±0.67	1.01	Public>private	2.77±0.72	2.63±0.71	4.23*	boys>girls
Emotional support	2.95±0.90	2.72±0.70	8.38*	Private>public	2.69±0.72	2.81±0.77	2.76*	girls>boys
Criticism	1.97±0.79	1.91±0.69	0.72	private>public	2.14±0.70	1.82±0.70	22.31*	boys>girls
Approval	3.36±0.92	3.11±0.76	8.88*	Private>public	3.07±0.82	3.21±0.80	3.59	girls>boys
Dominance	1.68±0.60	2.07±0.67	34.72*	Public>private	1.90±0.62	1.71±0.63	9.86*	boys>girls
Exclusion	1.69±0.69	2.01±0.72	4.63*	Public>private	2.11±0.75	2.08±0.72	2.24	boys>girls
Romantic friend								
Companionship	1.46±1.02	1.41±0.85	0.24	Private>public	1.65±1.05	1.31±0.79	14.85*	boys>girls
Intimate disclosure	1.49±1.06	1.48±0.99	0.01	Private>public	1.37±0.89	1.73±1.17	14.73*	girls>boys
Pressure	1.24±0.66	1.21±0.49	0.38	Private>public	1.34±0.64	1.15±0.49	15.20*	Boys>girls
Satisfaction	1.50±1.12	1.49±0.98	0.01	Private>public	1.75±1.17	1.37±0.90	15.25*	boys>girls
Conflict	1.36±0.86	1.37±0.77	0.01	Public>private	1.29±0.74	1.52±0.88	8.95*	girls>boys
Emotional support	1.43±0.97	1.46±0.92	0.05	Public>private	1.36±1.05	1.34±1.00	0.36	Boys>girls
Criticism	1.20±0.53	1.24±0.57	0.53	Public>private	1.32±0.64	1.30±0.62	0.50	boys>girls
Approval	1.45±1.04	1.46±0.94	0.02	Public>private	1.71±1.12	1.72±0.85	0.30	girls>boys
Dominance	1.32±0.75	1.34±0.70	0.02	Private>public	1.26±0.64	1.50±0.77	13.51*	girls>boys
Exclusion	1.28±0.66	1.26±0.60	0.08	Private>public	1.39±0.69	1.45±0.75	5.35*	girls>boys

Table 4.4.1: Association between gender, school type and the qualities of different interpersonal relationships (mother and father relationships)

IR	School type		F-value	Source of difference	Gender		F-value	Source of difference
	Private (n=117) Mean ± SD	Public (n=383) Mean ±SD			Boys (n=159) Mean ± SD	Girls (n=341) Mean ± SD		
Mother								
Companionship	3.68±0.93	3.34±0.88	12.72*	Private>public	3.44±0.79	3.41±0.95	0.08	boys>girls
Intimate disclosure	3.27±1.16	3.15±1.16	1.25	Private>public	3.09±0.91	3.31±1.07	4.97*	girls>boys
Pressure	2.27±1.06	1.90±0.77	17.28*	Private>public	2.19±0.91	1.90±0.82	13.14*	boys>girls
Satisfaction	4.00±0.93	3.64±0.86	15.30*	Private>public	3.72±0.88	3.74±0.90	0.05	girls>boys
Conflict	2.24±0.69	2.31±1.00	0.71	Private>public	2.24±0.74	2.27±0.79	0.22	boys>girls
Emotional support	3.75±0.96	3.50±0.85	7.19*	Private>public	3.53±0.81	3.62±0.91	1.14	girls>boys
Criticism	2.12±0.76	2.34±1.01	6.25*	Public>private	2.29±0.82	2.27±0.83	2.80	boys>girls
Approval	3.67±0.82	3.43±0.76	8.62*	Private>public	3.47±0.72	3.50±0.80	0.17	girls>boys
Dominance	3.50±0.81	3.40±0.77	1.55	Private>public	3.51±0.77	3.38±0.78	2.87	boys>girls
Exclusion	1.82±0.74	2.10±0.80	11.8*	Public>private	2.10±0.75	1.79±0.74	19.34*	boys>girls
Father								
Companionship	3.31±0.96	2.41±1.02	70.0*	Private>public	2.65±1.08	2.61±1.07	0.11	boys>girls
Intimate disclosure	2.51±1.04	2.04±0.97	20.3*	Private>public	2.17±0.97	2.14±1.02	0.10	boys>girls
Pressure	2.26±1.08	1.97±0.84	20.30*	Private>public	2.10±0.93	1.84±1.04	9.45*	Boys>girls
Satisfaction	3.79±0.95	2.87±1.14	23.33*	Private>public	3.10±1.14	3.08±1.17	0.06	boys>girls
Conflict	2.05±0.87	2.13±0.98	0.70	Public>private	2.12±0.91	2.04±0.90	0.75	boys>girls
Emotional support	3.33±1.06	2.60±1.06	43.18*	Private>public	2.8±1.09	2.72±1.11	1.96	boys>girls
Criticism	2.03±0.96	2.31±1.00	7.32*	Public>private	2.25±0.98	2.02±0.97	6.08*	boys>girls
Approval	3.47±0.89	2.80±1.09	37.13*	Private>public	2.87±1.02	3.00±1.11	1.52	girls>boys
Dominance	3.51±1.06	3.49±1.00	2.35	Private>public	3.24±1.13	3.09±1.02	1.98	boys>girls
Exclusion	2.35±1.00	2.38±1.08	4.35*	Public>private	2.39±1.06	2.28±1.13	0.97	boys>girls

Level of significance p<0.05

4.5 Association between gender, school type, age and class and the overall positive and negative qualities across interpersonal relationships

Best friend relationship:

By gender, girls had a higher mean score of (3.08 ± 0.68) compared to boys who had a lower mean score of (2.95 ± 0.66) in the overall positive qualities with their best friend. However this was not statistically significant. In the overall negative qualities, boys had significantly higher mean score of (2.13 ± 0.51) compared to girls with a mean score of (1.87 ± 0.49) see table 4.5

By school type, students in private schools had significantly higher mean score of (3.21 ± 0.78) in the overall positive qualities with their best friend than students in public schools (2.99 ± 0.63) , while students in public schools had significantly higher mean score of (2.10 ± 0.57) in the overall negative qualities with their best friend.... See table 4.5

Romantic relationship:

By gender, boys had significantly higher mean score of (1.70 ± 1.06) in the overall positive qualities with their romantic friend than girls with a mean score of (1.35 ± 0.80) , while girls had significantly higher mean score of (1.42 ± 0.66) in the overall negative qualities with their romantic friend than boys.... See table 4.5

By age, adolescents between ages 15-19 years also had significantly higher mean score of (1.71 ± 1.03) and (1.43 ± 0.88) in the overall positive and negative qualities in their romantic relationship compared to adolescents between ages 11-14 years.... See table 4.5

Mother relationship:

By school type, students in private schools had significantly higher mean score of (3.65 ± 0.77) in the overall positive qualities with their mothers, while students in public schools had significantly higher mean score of (2.51 ± 0.74) in the overall negative qualities with their mothers. See table 4.5

Father relationship:

By age, adolescents between ages 11-14 years had significantly higher mean score of (3.00 ± 0.93) in the overall positive qualities with their fathers, compared to adolescents between ages 15-19 who had a lower mean score of (2.48 ± 0.90) See table 4.5

Table 4.5: Summary of ANOVA indicating the association between gender, age, school type and the overall level of positive and negative qualities across different interpersonal relationships

	Best friend: Positive qualities Mean \pm SD	Best friend: Negative qualities Mean \pm SD	Romantic friend: Positive qualities Mean \pm SD	Romantic friend: Negative qualities Mean \pm SD	Mother Positive qualities Mean \pm SD	Mother :negative qualities Mean \pm SD	Father: Positive qualities Mean \pm SD	Father :negative qualities Mean \pm SD
Variables								
TOTAL	3.04 \pm 0.69	1.96 \pm 0.51	1.46 \pm 0.91	1.28 \pm 0.57	3.49 \pm 0.72	2.35 \pm 0.60	2.72 \pm 0.95	2.31 \pm 0.78
Gender								
Boys	2.95 \pm 0.66	2.13 \pm 0.51	1.70 \pm 1.06	1.22 \pm 0.51	3.47 \pm 0.64	2.31 \pm 0.61	2.73 \pm 0.92	2.42 \pm 0.83
Girls	3.08 \pm 0.68	1.87 \pm 0.49	1.35 \pm 0.80	1.42 \pm 0.66	3.50 \pm 0.75	2.29 \pm 0.59	2.71 \pm 0.97	2.26 \pm 0.75
School type								
Private	3.21 \pm 0.78	1.91 \pm 0.49	1.47 \pm 1.00	1.28 \pm 0.61	3.65 \pm 0.77	2.30 \pm 0.54	3.28 \pm 0.78	2.24 \pm 0.77
Public	2.99 \pm 0.63	2.10 \pm 0.57	1.46 \pm 0.87	1.28 \pm 0.56	3.44 \pm 0.70	2.51 \pm 0.74	2.54 \pm 0.93	2.52 \pm 0.79
Class								
Junior	3.03 \pm 0.70	1.91 \pm 0.52	1.15 \pm 0.56	1.08 \pm 0.31	3.66 \pm 0.72	2.26 \pm 0.57	3.00 \pm 1.00	2.26 \pm 0.72
Senior	3.04 \pm 0.67	1.98 \pm 0.51	1.59 \pm 0.99	1.37 \pm 0.63	3.42 \pm 0.71	2.38 \pm 0.60	2.60 \pm 0.91	2.33 \pm 0.81
Age								
11-14	3.00 \pm 0.72	1.92 \pm 0.54	1.17 \pm 0.62	1.11 \pm 0.38	3.64 \pm 0.67	2.31 \pm 0.60	3.00 \pm 0.93	2.23 \pm 0.75
15-19	3.08 \pm 0.64	1.98 \pm 0.49	1.71 \pm 1.03	1.43 \pm 0.66	3.36 \pm 0.74	2.37 \pm 0.60	2.48 \pm 0.90	2.35 \pm 0.81
F(gender)	3.80	29.08*	16.02*	14.18*	0.11	2.38	0.06	4.744*
F (age)	1.56	1.67	47.51*	42.13*	19.12*	1.07	39.79*	2.64
F(school type)	10.10*	11.47*	0.004	0.01	8.03*	10.70*	59.80*	11.03*
F(gender \times age \times school type)	2.55*	1.12	0.30	0.32	1.29	0.85	0.93	2.67*

Significant level @ $p < 0.05$

4.6 Logistic regression analysis of relationship qualities predictors on depression (best friend and romantic relationships)

Best friend relationship:

Approval in best friend relationship emerged as a significant predictor of depression, this means that participants who reported high levels of approval in their best friend relationship were **(0.588)** times less likely to be diagnosed with depression compared to those with low levels of approval....

See table 4.6

Exclusion in best friend relationship was also a predictor of depression, this means that participants who reported higher levels of exclusion in their best friend relationship were **(1.614)** times more likely to be diagnosed with depression compared to those with low levels of exclusion.... See table 4.6

Romantic relationship:

Satisfaction in romantic relationship emerged as a significant predictor of depression, this means that participated who reported higher levels of satisfaction in their romantic relationship were **(0.413)** times less likely to be diagnosed with depression compared to those with low levels of satisfaction.... See table 4.6

Table 4.6: Logistic regression analysis of relationship qualities on depression (best friend and romantic friend)

Relationships	Predictor variables	AOR (95%CI)	p-value
Best friend relationship	Companionship	0.693 (.423-1.136)	0.146
	Intimate disclosure	1.463 (0.919-2.2329)	0.109
	Pressure	1.300 (0.723-2.335)	0.381
	Satisfaction	0.745 (0.418-1.329)	0.319
	Conflict	1.454 (0.880-2.410)	0.144
	Emotional support	1.485 (0.799-2.758)	0.211
	Criticism	1.012 (0.582-1.760)	0.965
	Approval	0.549 (0.306-0.986)	0.045*
	Dominance	1.379 (0.731-2.600)	0.321
	Exclusion	1.707 (1.192-2.446)	0.004*
Romantic relationship	Companionship	0.678 (0.265-1.732)	0.416
	Intimate disclosure	1.152 (0.576-2.304)	0.690
	Pressure	2.000 (0.857-4.669)	0.109
	Satisfaction	0.413 (0.165-1.032)	0.045*
	Conflict	0.986 (0.431- 2.254)	0.973
	Emotional support	1.286 (0.595-2.783)	0.523
	Criticism	0.894 (0.388-2.061)	0.793
	Approval	1.324 (0.580-3.025)	0.505
	Dominance	1.232 (0.563-2.694)	0.601
	Exclusion	1.083 (0.754-1.557)	0.665

4.7 Logistic regression analysis of relationship qualities predictors on depression (mother and father relationships)

Mother relationship:

Criticism in mother-adolescent relationship emerged as a significant predictor of depression, this means that participants who reported high levels of criticism with their mothers were **(2.096)** times more likely to be diagnosed with depression compared to those with low levels of criticism... See table 4.7

Exclusion in mother-adolescent relationship emerged as a significant predictor of depression, this means that participants who reported high levels of exclusion with their mothers were **(2.325)** times more likely to be diagnosed with depression... See table 4.7

Father relationship

Pressure in father-adolescent relationship emerged as a significant predictor of depression, this means that participants who reported high levels of pressure in their father relationship were **(1.771)** times more likely to have depressive symptoms compared to those with low levels of pressure.... See table 4.7

Approval in father-adolescent relationship emerged as a significant predictor of depression, this means that participants who reported higher levels of approval in their father relationship were **(0.481)** times more likely to have depressive symptoms compared to those with low levels of approval.... See table 4.7

Exclusion in father-adolescent relationship emerged as a significant predictor of depression, this means that participants who reported high levels of exclusion in their father relationship were **(1.574)** times more likely to be diagnosed with depression... See table 4.7

Table 4.7: Logistic regression analysis of relationship qualities on depression (mother and father relationship)

Relationships	Predictor variables	AOR (95%CI)	p-value
Mother relationship	Companionship	0.712 (0.431-1.176)	0.184
	Intimate disclosure	0.846 (0.558-1.282)	0.429
	Pressure	0.885 (0.506-1.549)	0.669
	Satisfaction	1.220 (0.685-2.175)	0.499
	Conflict	0.748 (0.448-1.248)	0.266
	Emotional support	0.961 (0.586-1.576)	0.875
	Criticism	2.096 (1.236-3.555)	0.006*
	Approval	0.903 (0.498-1.636)	0.736
	Dominance	0.963 (0.594-1.559)	0.877
	Exclusion	2.325 (1.624-3.328)	<0.001*
Father relationship	Companionship	1.051 (0.606-1.825)	0.859
	Intimate disclosure	0.750 (0.436-1.291)	0.300
	Pressure	1.777 (1.021-3.071)	0.042*
	Satisfaction	0.804 (0.465-1.388)	0.433
	Conflict	1.297 (0.757-2.222)	0.343
	Emotional support	1.013 (0.585-1.752)	0.964
	Criticism	0.796 (0.463-1.369)	0.410
	Approval	0.481 (0.27-0.846)	0.011*
	Dominance	1.114 (0.726-1.709)	0.622
	Exclusion	1.574 (1.252-1.978)	<0.001*

* level of significance <0.05

4.8 Logistic regression analysis of relationship qualities predictors on anxiety (best friend and romantic relationships)

Best friend relationship:

Exclusion in best friend relationship was also a predictor of anxiety, so this means that participants who reported high levels of exclusion in their best friend relationship were **(1.614)** times more likely to be diagnosed with anxiety.... See table 4.8

Dominance in best friend relationship was also a predictor of anxiety, this means that participants who reported higher levels of dominance in their best friend relationship were **(1.614)** times more likely to be diagnosed with anxiety.... See table 4.8

Romantic relationship:

Satisfaction in romantic relationship emerged as a predictor of anxiety, which means that participants who reported high levels of satisfaction in their best friend relationship were **(0.520)** less likely to be diagnosed with anxiety..... See table 4.8

Table 4.8: Logistic regression analysis of relationship qualities on anxiety (best friend and romantic relationships)

Relationships	Predictor variables	AOR (95%CI)	p-value
Best friend relationship	Companionship	0.942 (0.658-1.347)	0.742
	Intimate disclosure	0.791 (0.579-1.080)	0.140
	Pressure	1.067 (0.684-1.664)	0.775
	Satisfaction	1.105 (0.729-1.675)	0.638
	Conflict	1.128 (0.783-1.626)	0.517
	Emotional support	1.432 (0.921-2.228)	0.111
	Criticism	1.011 (0.663-1.541)	0.960
	Approval	0.668 (0.435-1.026)	0.065
	Dominance	2.195 (1.384-3.480)	0.001*
	Exclusion	1.577 (1.162-2.142)	0.004*
Romantic relationship	Companionship	0.942 (0.658-1.347)	0.742
	Intimate disclosure	1.354 (0.760-2.415)	0.304
	Pressure	0.786 (0.380-1.625)	0.516
	Satisfaction	0.520 (0.283-0.954)	0.035*
	Conflict	1.127 (0.600-2.115)	0.711
	Emotional support	0.850 (0.487-1.485)	0.569
	Criticism	1.169 (0.594-2.300)	0.651
	Approval	1.106 (0.608-2.013)	0.742
	Dominance	0.889 (0.464-1.702)	0.722
	Exclusion	1.040 (0.727-1.487)	0.830

4.9 Logistic regression analysis of relationship qualities predictors on anxiety (mother and father relationships)

Father relationship:

Exclusion in father-adolescent relationship emerged as a significant predictor of anxiety, this means that participants who reported high levels of exclusion with their fathers were **(1.651)** times more likely to be diagnosed with anxiety... See table 4.9

Companionship in father-adolescent relationship emerged as a significant predictor of anxiety, this means that participants who reported high levels of companionship with their fathers were **(0.622)** less likely to be diagnosed with anxiety... See table 4.9

Mother relationship:

Exclusion in mother-adolescent relationship emerged as a significant predictor of anxiety, this means that participants who reported high levels of exclusion with their mothers were **(1.937)** times more likely to be diagnosed with anxiety... See table 4.9

Table 4.9: Logistic regression analysis of relationship qualities on anxiety (mother and father relationships)

Relationships	Predictor variables	Odds ratio (95%CI)	p-value
Mother relationship	Companionship	1.371 (0.926-2.030)	0.115
	Intimate disclosure	0.892 (0.660-1.205)	0.455
	Pressure	1.095 (0.704-1.704)	0.688
	Satisfaction	0.675 (0.434-1.049)	0.081
	Conflict	0.983 (0.647-1.492)	0.935
	Emotional support	0.909 (0.620-1.332)	0.624
	Criticism	1.136 (0.754-1.710)	0.543
	Approval	1.040 (0.662-1.634)	0.864
	Dominance	1.028 (0.715-1.478)	0.882
	Exclusion	1.937 (1.414-2.654)	<0.001*
Father relationship	Companionship	0.622 (0.424-0.911)	0.015*
	Intimate disclosure	0.960 (0.686-1.343)	0.811
	Pressure	1.182 (0.762-1.834)	0.454
	Satisfaction	0.791 (0.521-1.203)	0.274
	Conflict	1.018 (0.665-1.558)	0.934
	Emotional support	1.460 (0.950-2.244)	0.085
	Criticism	1.477(0.965-2.261)	0.073
	Approval	0.759 (0.498-1.158)	0.201
	Dominance	0.979 (0.696-1.377)	0.904
	Exclusion	1.651 (1.349-2.021)	<0.001*

4.10 Logistic regression analysis of relationship qualities predictors on low self-esteem (best friend and romantic relationships)

Best friend relationship:

Companionship in best friend relationship emerged as a significant predictor of low self-esteem, so this means that participants who reported high levels of companionship in their best friend relationship were **(0.649)** times less likely to have low self-esteem.... See table 4.10

UNIVERSITY OF IBADAN LIBRARY

Table 4.10: Logistic regression analysis of relationship qualities predictors on low self-esteem (best friend and romantic relationship)

Relationships	Predictor variables	Odds ratio (95%CI)	p-value
Best friend relationship	Companionship	0.649 (0.441-0.954)	0.028*
	Intimate disclosure	1.007 (0.715-1.419)	0.967
	Pressure	0.750 (0.460-1.225)	0.251
	Satisfaction	1.121 (0.734-1.713)	0.597
	Conflict	1.252 (0.854-1.835)	0.250
	Emotional support	0.988 (0.631-1.548)	0.959
	Criticism	0.897 (0.581-1.386)	0.625
	Approval	0.909 (0.590-1.400)	0.665
	Dominance	1.238 (0.770-1.989)	0.379
	Exclusion	1.059 (0.778-1.442)	0.714
Romantic relationship	Companionship	1.114 (0.530-2.341)	0.775
	Intimate disclosure	0.788 (0.453-1.370)	0.398
	Pressure	0.703 (0.334-1.481)	0.354
	Satisfaction	1.181 (0.659-2.117)	0.577
	Conflict	1.252 (0.854-1.835)	0.250
	Emotional support	1.462 (0.820-2.606)	0.198
	Criticism	1.010 (0.519-1.965)	0.977
	Approval	0.824 (0.448-1.516)	0.534
	Dominance	1.029 (0.558-1.900)	0.926s
	Exclusion	1.087 (0.782-1.512)	0.619

4.11 Logistic regression analysis of relationship qualities predictors on low self-esteem (mother and father relationships)

Mother relationship:

Intimacy disclosure in mother-adolescent relationship emerged as a significant predictor of low self-esteem, this means that participants who reported high level of intimacy with their mothers were **(0.668)** times less likely to have low self-esteem compared to those with low levels of intimacy ... See table 4.11

Father relationship:

Exclusion in father-adolescent relationship emerged as a significant predictor of low self-esteem, this means that participants who reported high levels of exclusion with their fathers were **(1.359)** times more likely to have low self-esteem... See table 4.11

Word count: 1898

4.11: Logistic regression analysis of relationship qualities predictors on low self-esteem (mother and father)

Relationships	Predictor variables	Odds ratio (95%CI)	p-value
Mother relationship	Companionship	0.790 (0.532-1.174)	0.243
	Intimate disclosure	0.668 (0.486-0.918)	0.013*
	Pressure	1.454 (0.940-2.249)	0.093
	Satisfaction	1.391 (0.883-2.190)	0.155
	Conflict	0.911 (0.602-1.376)	0.657
	Emotional support	1.320 (0.840-1.927)	0.151
	Criticism	1.047 (0.697-1.572)	0.825
	Approval	0.887 (0.559-1.407)	0.610
	Dominance	0.834(0.574-1.211)	0.339
	Exclusion	1.233 (0.908-1.676)	0.180
Father relationship	Companionship	0.875 (0.581-1.317)	0.522
	Intimate disclosure	1.002 (0.689-1.457)	0.992
	Pressure	0.869 (0.562-1.343)	0.526
	Satisfaction	0.764 (0.503-1.162)	0.209
	Conflict	0.896 (0.585-1.372)	0.614
	Emotional support	1.349 (0.885-2.056)	0.164
	Criticism	1.241 (0.822-1.875)	0.305
	Approval	0.757 (0.490-1.170)	0.210
	Dominance	1.173 (0.836-1.645)	0.355
	Exclusion	1.359 (1.118-1.651)	<0.002*

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATION

5.10 Discussion

This was a cross sectional descriptive study aimed at determining the association between qualities of interpersonal relationships and emotional problems among in-school adolescents in Ibadan northwest local government, Oyo state.

5.1.1 Socio-demographic characteristics of the study participants

A total of 500 secondary school adolescents in five (5) secondary schools (3 public and 2 private schools) in Ibadan northwest local government area participated in the study. In this study, female participants were higher in proportion (68.2%) than male participants (31.8%). This is different from the study carried out by (Omigbodun *et al.*, 2008) among secondary school students in Ibadan which found a higher percentage of males to be 52.8% vs. 42.8% females. However the higher percentage of females (68.2%) in this study could be that, a single-sex (girls only) public secondary school was among the five (5) secondary schools that were sampled for the study.

The age of the study participants ranged from 11-19 years old, with the mean age of 14.63 (SD=1.73). The mean age found in this study is similar to the mean age of 14.0 years found by (Fatiregun, 2014), in a study of 1367 in-school adolescents between 10-19 years. In this study, the minimum age limit is 11 years because it was expected that students in junior secondary class two (JSS2) should not be younger than 11 years. The findings from his study indicated that majority of the participants were Christians, living with parents in married monogamous home settings is similar to findings from previous studies among secondary school adolescents.

The age of the study participants ranged from 11-19 years old, with the mean age of 14.63 (SD=1.73). The mean age found in this study is similar to the mean age of 14.0 years found by (Fatiregun, 2014), in a study of 1367 in-school adolescents between 10-19 years. In this study, the minimum age limit is 11 years because it was expected that students in junior secondary class two (JSS2) should not be younger than 11 years. The findings from this study indicated that majority of the participants were Christians, living with parents in married monogamous home settings is similar to findings from previous studies among secondary school adolescents in Ibadan (Omigbodun, 2006; Bella-Awusah *et al.*, 2016).

5.1.2 Prevalence of Emotional Problems

Emotional problems such as depression and anxiety accounts for a large proportion of disease burden in adolescents. Studies in this region among adolescents' estimates the prevalence rate between 10-20% (Adewuya *et al.*, 2007, Omigbodun *et al.*, 2008, Bella-Awusah *et al.*, 2012). This is consistent with this study which found the prevalence rate of depression to be 20%. The prevalence rate of depression among adolescents have been reported to range between 5-20% depending on the location, methodology and age bracket of the study participants (Rey *et al.*, 2012). The present study also showed a higher prevalence rate of depressive symptoms among females compared with males (23.9% and 18.2%) respectively and the difference was statistically significant, and this is in line with the study carried out by (Adewuya *et al.*, 2007) whose findings revealed that there is a significantly higher levels of depressive symptoms in females compared to males. Findings from (Bartels *et al.*, 2011) study on self-reported emotional and behavioral problems among adolescents revealed that females were more likely to get depressed than males.

This study also found a prevalence rate of Anxiety among respondents to be 55.2%. This is similar to the study out by (Osinubi, 2008) who found a prevalence of 55.7% among in-school adolescents in Ibadan, but higher than the study done by (Lasebikan *et al.*, 2012) who obtained a prevalence of anxiety of 49.3% among adolescents and adult in this region. The prevalence of anxiety disorders ranged between 6.8% to 85% in a meta-analysis among children and adolescents living in various states in Iran (Zarafshan *et al.*, 2015). High anxiety among students has been associated with bullying and peer victimization in schools (Rivers *et al.*, 2009). Also, corporal punishments, emotional abuse, pressure to do well in school, parenting style and teaching styles may be contributing to anxiety among secondary school adolescents.

Self-esteem refers to the extent to which a person values, approves or appreciate himself or herself and has a prominent effect on one's mental health. Self-esteem has also been found to be the most dominant and powerful predictor of happiness (Rosenberg, 1965). People with very low self-esteem usually focus on the negative aspects of their lives and spend less time to think positively.

The prevalence of low self-esteem in this study was 27.4% which is in line with the study carried out by (Okwaraji *et al.*, 2018) who found a prevalence rate of 28.7%. However, another study conducted among adolescents in this region found a prevalence rate 1% (Haleem, 2016). Harsh economic conditions, lack of social support from parents, dating violence, poor academic performance, excessive use of social media, high rate of cyberbullying, personality type and stress, have been associated with low self-esteem in adolescents (Okwaraji *et al.*, 2018).

5.1.3 Socio-demographic correlates of emotional problems

Socio-demographic characteristics of the study participants, showed the prevalence of depression to be significantly higher among the older adolescents (25.4%) compared to the younger adolescents (13.6%), with a p-value of ($p < 0.001$). This is similar to findings done by (Chinawa *et al.*, 2015) who found the prevalence of depression among adolescent to increase as the adolescents grew older. A significant relationship was also found to have existed between those who were not presently living with their parents and depression ($p < 0.001$) and anxiety ($p < 0.032$). This study also found out that adolescents who lived with their parents were less likely to have depressive symptoms, unlike those who lived with other people besides their parents and this may be due to the fact that those who are not staying with their parents may have been at one point or the other exposed to child labour, abuse and even neglect which may affect the mental health in the long run (Omigbodun 2004). A significant relationship also existed between parents' marital status with depression ($p < 0.004$), anxiety ($p < 0.001$) and low self-esteem ($p < 0.047$). This is to say that adolescents whose parents were married, were less likely to have emotional problems compared to adolescents whose parents are either separated, divorced, or dead. This agrees with what was done by (Chinawa *et al.*, 2015) which shows that children who have unmarried parents have higher emotional problems.

Findings from this study shows that adolescents in public secondary schools had a significantly higher prevalence of depression (22.2%) compared to adolescents in private schools (12.8%), ($p < 0.027$). Also, students in public schools also had significantly higher prevalence of low self-esteem (30.3%) than adolescents in private schools (17.9%), ($p < 0.009$). This might indicate that adolescents in private secondary schools come from high social-class and are provided with essential basic needs which may decrease the level of emotional problems (Kerryan *et al.*, 2010).

Whereas, adolescents in public schools may have high levels of depressive symptoms due to the low socio-economic status of their parents. Studies have shown socio-economic status to be a risk factor for mental health problems in adolescents (Bradley & Roberts, 2002). Other risk factors may be the school environment, teaching style and lack of financial support to provide for their basic needs.

5.1.4 Gender and school type differences in the qualities of interpersonal relationships among best friend, romantic friend and parents

Studies have shown that in adolescents, friendship has both positive and negative impact on the adolescent's mental health (Brown & Klute, 2003). Result from this study showed that, girls had significantly higher levels of intimacy, satisfaction and emotional support from their best friends as compared with boys. This is consistent with previous research carried out by (Pagano & Hirsch 2007; Jenkins *et al.*, 2002; Johnson 2004) who found out that girls generally attributed higher quality to their relationships, reporting higher levels of support, disclosure and closeness in these relationships. The reason for this is that girls tend to be more emotionally expressive with their same-sex friends, spending more time in social conversations and they report more self-disclosure with their friends than boys, thereby using these relationships as a safe haven in contributing to their self-concept and well-being (Furman & Buhrmester, 1992; Jenkins *et al.*, 2002). In contrast, boys perceived the quality with their relationships with their best/close friends to be negative, reporting significantly higher levels of pressure, conflict, criticism, dominance and exclusion in this relationships, which is consistent with findings of (La Greca and Harrison 2005). The reason could be that boys focus more on the issue of dominance and maintenance of social status (Mathieson & Banerjee, 2011). Reason could be that boys are likely to interrupt one another, they use commands, threats or boasts of authority and simply refuse to comply with their friend's

demands, thereby leading to conflict and aggressive behavior, which can affect their relationship negatively (Pagano and Hirsch, 2005).

Adolescent's romantic relationships are similar to best/close friendships in that both are expected to provide support, intimacy, companionship, approval and satisfaction and a positive romantic relationship during adolescence may provide an important source of support and contribute in positive ways to adolescent's mental health. Previous studies have shown that girls tend to report higher levels of positive qualities such as intimacy and satisfaction in their romantic relationship than boys (Connolly & McIsaac, 2011). Interestingly, boys reported high levels of intimacy, satisfaction and support with their romantic partners (Kenny *et al.*, 2013; Shulman *et al.*, 1997). The reason for this may be that boys may perceive relationship with romantic partners to be more intimate, in that they enjoy the company of their romantic partners and they may be more soft and calm when relating with their partners. However girls perceived their romantic relationships to be negative and this is consistent with the findings of (Pagano and Hirsch, 2005) who revealed that girls may experience the interruptions and challenges of having a romantic partners as unpleasant and hurtful and they may not be able to handle such challenges which may eventually lead to conflict. Also dating a violent/aggressive male partner can lead to hurtful conflicts.

In line with previous studies, girls reported significantly higher levels of intimate disclosure in their relationship with their mothers, suggesting that girls are more inclined to use their mothers as their primary source of parental support in which they can disclose anything and everything going on in their lives with their mothers (Branje *et al.*, 2010). In terms of father-adolescent relationships, boys reported significantly higher levels of pressure and criticism in this relationship and this may be linked to the tendency of fathers to use harsh form of discipline with their male

children than with female children. Studies have shown that harsh level of discipline have been associated with both internalizing and externalizing problems in adolescents and these problems may lead to delinquent behaviors, problems with self- esteem, poor academic performance and poor interpersonal skills which may in turn affect their relationships with people around them (Bender *et al.*, 2007).

Adolescents in private schools reported significantly higher levels of pressure in their best friend relationship, and this can be caused by peer pressure among themselves, wanting a sense of belonging, competition in academics, popularity/fame since some of them come from relatively high socio-economic class. Adolescents attending public schools also reported significantly higher levels of dominance in their best-friend relationship, although the reason for this not clear, but it may due to several factors such as: parenting style, socio-economic status (it is assumed that students in public schools come from low socio-economic background), and previous studies have shown poverty to be a significant risk factor for abnormal behavior in adolescents. However this findings need further research (Gore *et al.*, 1992).

In mother-adolescent relationship, adolescents in private schools had higher levels of companionship, approval and satisfaction compared to adolescents in public schools. The reason may be as a result of the family setting of the adolescents in that most of them come from a monogamous home that is very supportive and involved in the lives of their children. Another possible reason may be mother's level of education, because it has been observed that highly educated mothers have a better understanding of child/adolescent development and are able to choose a more parenting style and practice (Mohammadi and Zarafshan, 2014). Therefore mothers with high level of education can better guide adolescents to establish positive social relationships.

Adolescents in public schools had significantly higher levels of exclusion with their mothers, reason being that the mothers may not be emotionally involved in the lives of the adolescents due to mothers' level of education and low socio-economic status. This means that they may not have the proper understanding of adolescent development due to their level of education. They may also be pre-occupied on how to feed their children and may not have much more time to spend with them. However, we cannot assume causation, it may be that depressed adolescents may perceive their relationships with their mothers to be negative.

5.1.5 Association between the overall levels of positive and negative qualities with gender, age and school type

Boys reported the highest level of overall negative qualities in their best-friend relationships. However, the reason for this is that boys are pre-occupied with social status, wealth, they engage in delinquent behavior which can affect their relationships negatively, boys also perceive that being too emotionally attached to a friend makes them too dependent and they may not earn the “respect” they want from their friends (Nansel *et al.*, 2001). Similar to previous findings, girls also reported the highest level of overall positive qualities with their mothers in that mothers are highly involved and spend more time with same-gender adolescent compared to opposite-gender adolescent (Phares *et al.*, 2019). Older adolescents also reported the highest level of positive qualities in their romantic relationships which is consistent with the findings of (Furman & Buhrmester, 1992) who found out that older adolescents perceive their romantic relationships to be more supportive and intimate than younger adolescents. Findings from La Greca and Harrison (2005) also found no age difference in the overall levels of positive friendship qualities during adolescence, and this is in line with what was found in this study, which means that intimacy, closeness and support in friendships remain stable throughout the period of adolescence. However,

one study among adolescents carried out by (Helsen *et al.*, 2000) found that high levels of support, intimacy is at its peak in early adolescence, and this is the period where adolescents begin to individuate from their parents and depend more heavily on their peers for support and companionship. Younger adolescents also reported the highest level of positive qualities with their parent and this is consistent with the study of (Jenkins *et al.*, 2002) who found out that younger adolescents tend to report a positive relationship with parents and the reason for this is that, since they are just beginning to individuate from the family, they still might need family support and approval in order to feel secure in their quest for autonomy.

Students in private schools reported the highest level of overall positive qualities in their best friend relationship. Studies have shown that positive peer relationships are more likely to be established by adolescents who come from high-social class families (Wang *et al.*, 2020), and most of the adolescents in private schools come from high –social class families. In addition, adolescents who come from high- social families may have more sense of superiority and self-identity, than those who come from low social class families, they are also more attractive (well-clothed), which makes them easier to be accepted by their friends (Sweeting *et al.*, 2011). Students in public schools perceived their relationships with their best friends to be negative and this may be that students in public schools may lack empathy and be more aggressive with their close friends due to low socio-economic status of their parents, work after school, they may be preoccupied with the inability of their parents to meet their basic needs due to lack of finance, which are associated with diminished self-esteem, anger and behavioral problems in adolescents, thereby causing more interpersonal problems with their friends (Bradley & Roberts, 2002).

5.1.6 Relationship qualities predictors of emotional problems (depression, anxiety and low self-esteem)

A number of studies, have shown that both positive and negative qualities of interpersonal relationships have a significant impact on adolescent well-being/mental health (Kenny *et al.*, 2013; Jenkins *et al.*, 2002; Pagano and Hirsch 2005). Findings from this study showed satisfaction in best friend relationship to be a significant predictor of depression, with higher levels of satisfaction predicting lower levels of depressive symptoms, suggesting that close friendships may serve as a protective mental health function. Companionship in best friend relationships have also been associated with positive self-esteem and better psychosocial adjustment in adolescence (Buhrmester, 1990). Moreover, negative qualities in best-friend relationships such as exclusion and dominance was also a significant predictor of emotional problems, and this is line with previous research linking exclusion in close friend relationships in predicting depression, social anxiety, problems with school adjustment, loneliness, withdrawal and self-esteem issues (La Greca & Harrison, 2005). Although it is likely that negative interactions with a best friend may contribute to depressive symptoms, however it was not possible to determine whether adolescents who were depressed behaved negatively with friends or perceived friends behavior negatively, but research has shown that adolescent feelings of depression have been associated with less social participation and more interpersonal problems (Mufson *et al.*, 1999). Adolescent romantic relationships are similar to close friendships in that both involve support, intimacy and companionship and a positive romantic relationship during adolescence may provide an important source of support and contribute in positive ways to adolescents' mental health. In terms of the association between romantic relationship and emotional problems, satisfaction in romantic relationships predicted lower levels of depression and anxiety. This is in tandem with previous research suggesting the

importance of romantic relationships in adolescents' day to day lives and the positive impact they may have on adolescents' emotional well-being (Scalan *et al.*, 2012).

High levels of intimacy in mother-adolescent relationship emerged as a significant predictor of low self-esteem, with high levels of intimacy predicting high self-esteem in adolescents. Studies have shown that a warm and robust relationship with both mothers are found to be associated with positive self-esteem, social competence and general well-being in adolescents (Helsen *et al.*, 2000). Approval and companionship in father-adolescent relationship also emerged as a significant predictor of depression and anxiety, with higher levels of approval predicting lower levels of depressive and anxiety symptoms in adolescents. Positive father-adolescent relationship have been associated with good academic performance, low levels of externalizing behaviors and good interpersonal skills (Carlson, 2006; Sandler *et al.*, 2008). Besides, positive parent-adolescent relationships increased adolescents' cognitive development, language development, body satisfaction and life satisfaction (Martins *et al.*, 2007). Lastly, positive parent-adolescent relationships have also been suggested to promote positive and protective sexual behaviors in youth (Deptula *et al.*, 2010).

High levels of pressure, criticism and exclusion in parent-adolescent relationships predicted depression, anxiety and low self-esteem, which is in line with (Wedig and Nock 2007) findings that high levels of negative qualities in parent-adolescent relationship were linked to psychological difficulties in adolescents and more daily stressors during adulthood (Mallers *et al.*, 2010).

Although adolescence stage is a stage they struggle to develop autonomy, thereby spending decreasing amount of time with their parents, the parent-adolescent relationship is still very important to protect young peoples' psychological well-being (Hair *et al.*, 2008).

5.2 STRENGTHS

1. One important key strength in this study was the wide range of positive and negative qualities examined among four different types of interpersonal relationships (best-friend, mother, father and romantic partners) and how these qualities affects adolescence emotional well-being.
2. To the best of my knowledge, this is one of the first studies that will examine how both positive and negative qualities of interpersonal relationships predict emotional problems among adolescents in this region.

5.3 LIMITATION

1. The use of self-report measures findings may have been influenced by negative interpretation bias that is, the tendency of adolescence with mental health problems to perceive relationships as more negative than they really are.

5.4 CONCLUSION

In conclusion, this study showed that a robust, warm, supportive and positive relationship with both parent, best-friend and romantic friend protects the adolescence from internalizing problems, whereas negative qualities such as dominance, criticism, pressure and exclusion were predictors of depression, anxiety and low self-esteem. Therefore intervention based program should be made to foster and promote positive interpersonal relationships in promoting positive mental health.

5.5 RECOMMENDATIONS

1. Mental health awareness and promotion campaign in both private and public schools should be carried out
2. Mental health interventions which foster positive interpersonal relationships in promoting positive mental health for parents, peers and teachers should be initiated and mainstreamed.

WORD COUNT: 3378

REFERENCES

- Abiodun, (1994). A validity study of the hospital anxiety and depression scale in general hospitals units and a community sample in Nigeria. *Mental health, Religion and culture*. 12,527-524.
- Adedire, A., & Olofinlua T. (2017). The meaning of living in a religious space: The Sabon Gari Example. *Ifra Nigeria Working Paper Series N^o 43 3/10*
- Adegoke, A. A. (2011). *Helping Professions in Africa*. Ilorin: University Press.
- Adewuya, A.O, Ola, B.A and Aloba O.O. (2007). Prevalence of major depressive disorders and validation of the Beck Depression Inventory among Nigerian Adolescent. *European child & Adolescent psychiatry*. Volume 16, Issue5, pp 287-292
- Allen, J., Porter, M., McFarland, C., McElhaney, K. B., & Marsh, P. (2007). The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. *Child Development*, 78 (4), 1222–1239.
- Anderson, S. E., Dannal, G. E., & Must, A. (2003). Relative weight and race influence average age at menarche: Results from two nationally representative surveys of U.S. girls studied 25 years apart. *Pediatrics*, 111, 844–850.
- Arnett, J. (1999). Adolescent storm and stress, reconsidered *American psychologist*, 54(5), 317-326.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117 (3), 497–529
- Baumeister, R. F., & Tice, D. M. (1986). How adolescence became the struggle for self: A historical transformation of psychological development. In J. Suls & A. G. Greenwald (Eds.), *Psychological perspectives on the self* (Vol. 3, pp. 183–201). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bender, H. L., Allen, J.P., McElhaney, K.B., Antonishak, J., Moore, C. M., O'Beirne Kelly, H., et al. (2007). Use of harsh physical discipline and developmental outcomes in adolescence. *Development and Psychopathology*, 19(1), 227-242.
- Berschied, (1999). The Greening Relationship Science *American Psychologist* 4, 54, (4) pp.260-266.
- Blakemore, S. J. (2008). Development of the social brain during adolescence. *Quarterly Journal of Experimental Psychology*, 61, 40–49.
- Bogard, K. L. (2005). Affluent adolescents, depression, and drug use: the role of adults in their lives. *Adolescence*, 40, 281–306.

- Branje, S. J. T., Hale, W. W., Frijns, T., & Meeus, W. H. J. (2010). Longitudinal associations between perceived parent-child relationship quality and depressive symptoms in adolescence. *Journal of Abnormal Child Psychology*, 38, 751–763
- Buhrmester, D. & Furman, W. (2008). *The Network of Relationships Inventory: Relationship Qualities Version*. Unpublished measure, University of Texas at Dallas.
- Cherlin Andrew, J, Chase-Lansdale, P. (1998). Effects of parental divorce on mental health throughout the life course. *Sociological Review*. 63(2): 239-249.
- Connolly, J., & McIssac, C. (2011). Romantic relationships in adolescence. In M. K. Underwood, & L. H. Rosen (Eds.), *Social development: Relationships in infancy, childhood, and adolescence* (pp.180-206). New York: Guildford Press.
- Costello, E.J., Mustillo, S., Erkanli, A., Keeler, G., & Angold, A. (2003). Prevalence and development of psychiatric disorders in childhood and adolescence. *Archives of General Psychiatry*, 60, 837-844.
- Davilla, J., Steinberg, S. J., Kachadourian, L., Cobb, R., & Fincham, F. (2004). Romantic involvement and depressive symptoms in early and late adolescence: the role of preoccupied relational style. *Personal Relationships*, 11, 161-178.
- Devito, J. A. (2004). *The Interpersonal Communication Book* (10th ed.). Boston: Pearson-Ally & Bacon.
- Eccles, J.S., Midgley, C., Wigfield, A., Buchanan, C.M., Reuman, D., Flanagan, C., & Maclver, D. 1993. Development during adolescence: The impact of stage environment fit on young adolescents' experiences in schools and families. *American psychologists*, 48,90-101.
- Eisenberg, N., Carlo, G. Murphy, B., & Van Court, P.1995. prosocial behaviour in late adolescence: A longitudinal study. *Child development*, 66, 1179-1197.
- Elkind, D. (1978). *The child's reality: Three developmental themes*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Evalill K., (2008). Emotional problems in childhood and Adolescence Predictors, pathways and underlying structure. ISSN 1504-3991
- Furman, W. & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21, 1016-10
- Furman, W. & Buhrmester, D. (2009). The Network of Relationships Inventory: Behavioral Systems Version. *International Journal of Behavioral Development*, 33, 470-478.
- Ge, X., Conger, R. D., & Elder, G. H., Jr. (1996). Coming of age too early: Pubertal influences on girls' vulnerability to psychological distress. *Child Development*, 67(6), 3386–3400.

- Goldberg, E. (2001). *The executive brain: Frontal lobes and the civilized mind*. New York, NY: Oxford University Press.
- Goossens, L., Beyers, W., Emmen, M., & van Aken, M. (2002). The imaginary audience and personal fable: Factor analyses and concurrent validity of the “new look” measures. *Journal of Research on Adolescence*, 12(2), 193–215.
- Graber, J.A. (2004). Internalizing Problems During Adolescence. In R. Lerner & L. Steinberg (Eds.). *Handbook of Adolescent Psychology*. New York: Wiley.
- Hansen, D. J., Giacoletti, A. M., & Nangle, D. W. (1995). Social interactions and adjustment. In V. B. Van Hasselt & M. Hersen (Eds.), *Handbook of adolescent psychopathology: A guide to diagnosis and treatment*. New York: Lexington Books.
- Hauenstein, E. J. (2003). Depression in Adolescence. *JOGNN*, 32, 239-248.
- Hightower, E. (1990). Adolescent interpersonal and familial precursors of positive mental health at midlife. *Journal of Youth & Adolescence*, 19(3), 257-275.
- Jenkins, S. R., Goodness, K., & Buhrmester, D. (2002). Gender differences in early adolescents’ relationship qualities, self-efficacy and depression symptoms. *The Journal of Early Adolescence*, 22 (3), 277–309.
- Kendler, K. S., Kuhn J. W., Vittum, J., Prescott C. A., & Riley, B. (2005): The interaction of stressful life events and a serotonin transporter polymorphism in the prediction of episodes of major depression: A replication. *Arch Gen Psychiatry*, 62, 529 – 535.
- Kenny, R., Dooley, B., & Fitzgerald, A. (2013). Interpersonal relationships and emotional distress in adolescence. *Journal of Adolescence*, 36, 351-360.
- Kim, J, McHale, S.M, Osgood, D.W, Grouter, A.C. (2006). Longitudinal course and family correlates of sibling relationships from childhood through adolescence. *Child Development*. 77 (6): 1746-1761.
- La Greca, A. M., & Harrison, H. M. (2005). Adolescent peer relations, friendships, and romantic relationships: do they predict social anxiety and depression? *Journal of Clinical Child and Adolescent Psychology*, 34 (1), 49–61. doi: 10.1207/s15374424jccp3401
- La greca. A.M., & Lopez, N, (1998). Social anxiety among adolescents: linkages with peer relations and friendships. *Journal of Abnormal Child Psychology*, 26(2),83-94.
- Larkin, E. (1999). The intergenerational response to childcare and after-school care. *Generations*, 22(4), 33-36.
- Lempers, J, Clark-Lempers, D. (1992). Young, middle and late adolescents; comparisons of the functional importance of five significant relationships. *Journal of Youth and Adolescence*. 21 (1): 53-96.

- Levpušček, M. P. (2006). Adolescent individuation in relation to parents and friends: Age and gender differences. *European Journal of Developmental Psychology*, 3 (3), 238-264. doi: 10.1080/17405620500463864
- Lewinsohn, P. M., Gotlib, I. H., & Seeley, J. R. (1995). Symptoms versus a diagnosis of depression: differences in psychosocial functioning. *Journal Consult Clin Psychol*, 63 (1), 90-100.
- Lynne, S. D., Graber, J. A., Nichols, T. R., Brooks-Gunn, J., & Botvin, G. J. (2007). Links between pubertal timing, peer influences, and externalizing behaviors among urban students followed through middle school. *Journal of Adolescent Health*, 40, 181.e7–181.e13 (p. 198).
- Marano, Hara Estoff. (2010). Oh brother. *Psychology today*. Vol. 43 no.4. SIRS Researcher.pp.54-61.
- Marques, D. (2013). The quality of interpersonal relationships and depressive symptoms in a sample of Portuguese adolescents] (Unpublished master's thesis). Faculty of Psychology and Educational Sciences, University of Coimbra, Coimbra, Portugal.
- Marshall, W. A., & Tanner, J. M. (1986). Puberty. In F. Falkner & J. M. Tanner (Eds.), *Human growth: A comprehensive treatise* (2nd ed., pp. 171–209). New York, NY: Plenum Press.
- Mendle, J., Turkheimer, E., & Emery, R. E. (2007). Detrimental psychological outcomes associated with early pubertal timing in adolescent girls. *Developmental Review*, 27, 151–171.
- Nilsen, W., Karevold, E., Røyamb, E., Gustavson, K., & Mathiesen, K., S. (2013). Social skills and depressive symptoms across adolescence: Social support as a mediator in girls versus boys. *Journal of Adolescence*, 36, 11
- O' Koon, J. 1997. Attachment to parents and peers in late adolescence and their relationship with self-image. *Adolescence*, 32, 471-482.s
- Omigbodun, O.O., & Olatawura, M. (2008). Child rearing practice in Nigeria; Implication for mental health. *Nigerian Journal of Psychiatry*, 6(1).
- Pagano, M.E., & Hirsch, B.J. (2007). Friendships and romantic relationships of black and white adolescents. *Journal of Child and Family Studies*, 16,347-357.
- Pathak R, Sharma RC, Parvan UC, Gupta BP, Ojha RK, Goel NK. (2011). Behavioural and emotional problems in school going adolescents. *AMJ*, 4, 1: 15-21.
- Pinheiro, M., Matos, A., & Marques, D. (2013). The quality of the interpersonal relationship with the mother: adaptation and validation of the Quality of Relationships Inventory (QRI) in a sample of Portuguese adolescents]. Symposium conducted at the meeting of the First World Congress of Children and Youth Health Behaviors, Viseu, Portugal.
- Queen, A. H., Stewart, L. M., Ehrenreich-May, J., & Pincus, D. B. (2013). Mothers' and Fathers' Ratings of Family Relationship Quality: Associations with Preadolescent and Adolescent

Anxiety and Depressive Symptoms in a Clinical Sample. *Child Psychiatry Hum Dev*, 44, 351-360. doi: 10.1007/s10578-012-03297

- Rapoport, J. L., Giedd, J. N., Blumenthal, J., Hamburger, S., Jeffries, N., Fernandez, T....Evans, A. (1999). Progressive cortical change during adolescence in childhood-onset schizophrenia: A longitudinal magnetic resonance imaging study. *Archives of General Psychiatry*, 56(7), 649–654.
- Rawlins, W.K. (1992). *Friendship matters: Communication, dialectics, and life course*, New York: Aldine de Gruyter
- Resnick, M.D., Bearman, P.S., Blum, R. W., Bauman, K. E., Harris, K.M., Jones, J., (1997). Protecting adolescents from harm: findings from the national longitudinal Study on Adolescent Health. *Journal of the American Medical Association*, 278, 823-832.
- Rhodes, J. E., Contreras, J. M., & Mangelsdorf, S. C. (1994). Natural mentor relationships among Latina adolescent mothers: Psychological adjustment, moderating processes, and the role of early parental acceptance. *American Journal of Psychology*, 22(2), 211-227.
- Rhodes, J. E., Grossman, J. B., & Resch, N. L. (2000). Agents of change: Pathways through which mentoring relationships influence adolescents' academic adjustment. *Child Development*, 71(6), 1662-1671.
- Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press
- Rycek, R. F., Stuhr, S. L., McDermott, J., Benker, J., & Swartz, M. D. (1998). Adolescent egocentrism and cognitive functioning during late adolescence. *Adolescence*, 33, 746–750.
- Schirm, V, Ross-Alaolmolki, K., & Conrad, M. (1995). Collaborative education through a foster grandparent program: Enhancing intergenerational relations. *Gerontology & Geriatrics Education*, 15(3), 85-94.
- Schochet, I'M., Homel, R., Cockshaw, W. D., & Montgomery D., T. (2015). How Do School Connectedness and Attachment to Parents Interrelate in Predicting Adolescent Depressive Symptoms? *Journal of Clinical Child & Adolescent Psychology*, 37 (3), 676-681.
- Sheeber, L. B., Davis, B., Leve, C., Hops, H., & Tildesley, E. (2007). Adolescent's relationships with their mothers and fathers: associations with depressive disorder and subdiagnostic symptomology. *Journal of Abnormal Psychology*, 116 (1), 144–154.
- Singh, K., Bassi, M., Junnarkar, M., & Negri, L. (2015). Mental health and psychosocial functioning in adolescence: An investigation among Indian students from Delhi. *Journal of Adolescence*, 39, 59-69.
- Smetana, J.G. (1988). Adolescents and parents' conceptions of parental authority. *Child Development*. 59 (2): 321-335.

- Steinberg, L. (2007). Risk taking in adolescence: New perspectives from brain and behavioral science. *Current Directions in Psychological Science*, 16, 55–59.
- Twenge, J. M. (2006). *Generation me: Why today's young Americans are more confident, assertive, entitled — and more miserable than ever before*. New York, NY: Free Press.
- Weinberger, D. R., Elvevåg, B., & Giedd, J. N. (2005). The adolescent brain: A work in progress [PDF] National Campaign to Prevent Teen Pregnancy. Retrieved from <http://www.thenationalcampaign.org/resources/pdf/BRAIN.pdf>
- Zahn-Waxler, C., & Smith, K. D. (1992). The development of prosocial behavior. In M. Hersen (Ed.), *Handbook of social development: A lifespan perspective* (pp. 229-256). New York: Plenum Press.

UNIVERSITY OF IBADAN LIBRARY

APPENDICES

APPENDIX ONE

INFORMED CONSENT

EMOTIONAL PROBLEMS AND ITS ASSOCIATION WITH INTERPERSONAL RELATIONSHIPS AMONG IN-SCHOOL ADOLESCENT IN NORTHWEST LOCAL GOVERNMENT, IBADAN, NIGERIA

I am a student of the Centre for Child and Adolescent mental health, University of Ibadan. The purpose of this study is to find the association between emotional problems (Depression, Anxiety and Self-esteem) and interpersonal relationships among in-school adolescents in Ibadan Northwest local government area.

In the course of this study, you will be asked some personal and family related questions as well as symptoms that may suggest emotional problems, you will also be asked to complete some series of questionnaire.

Your participation in this research will be at no cost, but if we discover any sign of emotional problem, you will benefit from psychotherapy session and appropriate referral where and which necessary.

All questions to be used will be coded in such a way as to provide confidentiality of information gotten from participant. There will be no name writing on any of the research instruments.

Note that your participation in this research is voluntary and you have the right to withdraw at any time if you choose to, it will not affect your interaction with your teachers, colleagues or interviews in any way. However, I will appreciate your assistance in responding and taking part in the study.

Consent: Now that the study has been well explained to me and I understand fully all that is written therein and the content of the process, I will be willing to participate in the study.

Participant signature

Date interviewed

APPENDIX TWO

NETWORK OF RELATIONSHIP INVENTORY (RELATIONSHIP QUALITY VERSION)

These questions below ask about your relationships with the four (4) types of people listed on the right. On each blank line, write one number from 1 to 5. Look below to see what each number means.

1= Never

2= Seldom/ not too much

3= Sometimes

4= Often or very much

5= Always or extremely much

Scale	Best friend	Boy\girl friend	Mother	Father
1. How often do you spend fun time with these people?				
2. How often do you tell these people things that you don't want others to know?				
3. How often do these people push you to do things that you don't want to do?				
4. How happy are you with your relationship with these people?				
5. How often do you and these people disagree and quarrel with each other?				
6. How often do you turn to these people for support with personal problems?				
7. How often do these people points out your faults or put you down?				
8. How often does these people praise you for the kind of person you are?				
9. How often do these people get their way when you two do not agree about what to do?				
10. How often do these people not include you in activities?				

11. How often do these people go places and do things together?				
12. How often do you tell these people everything that you are going through?				
13. How often do these people try to get you to do things that you don't like?				
14. How much do you like the way things are between you and these people?				
15. How often do you and these people get mad or angry at each other?				
16. How often do you depend on these people for help, advice or sympathy?				
17. How often do these people criticize you?				
18. How often do these people really seem proud of you?				
19. How often do these people end up to being the one who makes the decision for both of you?				
20. How often does it seem like this people ignore you?				
21. How often do you play around and have fun with these people?				
22. How often do you share secrets and private feelings with these people?				
23. How often do these people pressure you to do the things that he or she wants?				
24. How satisfied are you with your relationship with these people?				
25. How often do you and these people argue with each other?				
26. When you are feeling down or upset, how often do you depend on these people to cheer you up?				
27. How often do these people say mean or harsh words to you?				

28. How much do these people like or approve the things you do?				
29. How often do these people get you to do things their way?				
30. How often do it seem like these people do not give you the amount of attention that you want?				

UNIVERSITY OF IBADAN LIBRARY

8. Please write down the exact place you attend for worship

8. Kọ ibi ti o ti maa njọsin

-
- (a) Islam religion (b) Orthodox Christian (c) Pentecostal Christian (d) Traditional religion
(e) Other

9. How much does the teaching of your religion guide your behaviour?

9. Bawo ni igbagbọ rẹ ẹe ntọ ihuwasi rẹ?

- (a) Very much (b) much (c) Just a little (d) Not at all

- (a) O ntọ ọ gan an (b) O ntọ ọ (c) O ntọ ọ diẹ (d) Ko tọ ọ rara

10. How much does the teaching of your religion guide your family life?

10. Bawo ni ẹsin naa se se pataki to ni ẹbi ẹ?

- (a) Very much at all (b) much (c) Just a little (d) Not at all

- (a) O ẹe pataki gan-an pataki (b) O ẹe pataki (c) O ẹe pataki diẹ (d) Ko ẹe pataki

Family Information

11. Family Type:

11. Iru ẹbi:

- (a) Monogamous (b) Polygamous

- (a) Oniyawo kan (b) Oniyawo meji tabi ju beẹlo

12. Number of Mother's Children:

12. Ọmọ melo ni Iya rẹ ni?:

13. Number of Father's Children:

13. Ọmọ melo ni Baba ẹ ni?:

14. What is your position among your father's children?

14. Ipo wo lo wa ninu awon ọmọ baba ẹ?

15. What is your position among your mother's children?

15. Ipo wo lo wa ninu awon ọmọ iya ẹ?

16. Marital Status of Parents:

16. Ibagbe ọ awon obi ẹ:

(a) Married (b) Separated/Divorced (c) Father is dead (d) Mother is dead (e) Mother & Father are dead

(a) Ẹ wọn gbe ọ? (b) Ẹ wọn ti kọ ra wọn sile? (c) Baba ti ku (d) Iya ti ku (e) Iya ati Baba ti ku

17. How many husbands has your mother had?

17. Ọkọ melo ni Iya ẹ ti ni ri?

18. Who do you live with presently?

18. Tani o n gbe pelu lowolowo?

(a) Parents (b) Mother (c) Father (d) Grandparents (e) Grandmother

(a) Awon obi (b) Iya nikan (c) Baba nikan (d) Iya ati Baba Agba (e) Iya Agba nikan

(f) Grandfather (g) Other [please specify] _____

(f) Baba Agba nikan (g) Awon Iyoku [Jowo so nipato] _____

19. Who brought you up from your childhood?

19. Talo to ẹ dagba lati kekere?

(a) Parents (b) Mother (c) Father (d) Grandparents (e) Grandmother

(a) Awon obi (b) Iya nikan (c) Baba nikan (d) Iya ati Baba Agba (e) Iya Agba nikan

(f) Grandfather (g) other [please specify] _____

(f) Baba Agba nikan (g) Awon Iyoku [Jowo so nipato] _____

20. How many different people have you left your parents to live with from your childhood? _____

20. Awon eniyan ototo melo ni o fi awon obi re sila lati lo gbe pelu won? _____

21. If more than one person, list the people, time spent and whether experience was good or bad?

21. Ti o ba ju enikan lo, ka won, akoko ti o lo lodu enikokan ati bi o ba dara tabi ko dara?

Person lived with	From which age to which age	Experience (good or bad)
Eni ti o ba gbe dara)	Omọ odun melo ni o nigba naa	Iriri re nibe (O dara tabi ko dara)
_____	_____	_____
_____	_____	_____
_____	_____	_____

22. Do you do any kind of work to earn money before or after school? Yes No

22. Nje o maa nsi se lati ri owo lehin tabi saaju ki o to lo si ile iwe? (Beeni tabi beko)

23. If yes, please describe what you do _____

23. Ti o ba je beeni, se alaaye ohun ti o se _____

24. Level of Father's Education

24. Iwe melo ni baba re ka?

(a) No Formal Education (b) Koranic School (c) Primary School (d) Secondary School

(a) Ko kawera (b) Ile-keu (c) Ile-Iwe Alakoberẹ (d) Ile iwe girama

(e) Post Secondary (Non-University) (f) University Degree and above (e) I do not know

(e) Ile-iwe agba (Yato fun yunifasiti) (f) Yunifasiti ati ju beẹ lo (e) Nko mo

25. Occupation of Father: [Write the exact occupation] _____ / I do not know

25. Işẹ wo ni Baba rẹ n ẹ: [Kọ işẹ ti wọn nşẹ pato lẹkunrẹ] _____ /Nko mo

26. Level of Mother's Education

(a) No Formal Education (b) Koranic School (c) Primary School (d) Secondary School

(a) Ko kawera (b) Ile-keu (c) Ile-Iwe Alakoberẹ (d) Ile iwe girama

(e) Post Secondary (Non-University) (f) University Degree and above (e) I do not know

(e) Ile-iwe agba (Yato fun yunifasiti) (f) Yunifasiti ati ju beẹ lo (e) Nko mo

27. Occupation of Mother: [Write in the exact occupation] _____ / I do not know

27. Işẹ wo ni iya rẹ nşẹ: [Kọ işẹ ti wọn nşẹ pato lẹkunrẹ] _____

28. Do you like your family? Yes No

28. Şe o fẹran ẹbi rẹ? Bẹni/Bẹko

29a. If Yes, Why? _____

29a. Bẹni, Şe alaye? _____

29b. If No, Why? _____

29b. Bẹko, Şe alaye? _____

School-Related Questions

30. Do you like your school? Yes/ No

30. Şe o fẹran ile-iwe rẹ? Bẹni / Bẹko

31. How many children are there in your class?____

31. Akẹkoṣo melo ni o wa ni kilaasi rẹ?_____

32. Do you do well academically? Yes No

32. Njẹ o nşe daada ninu ẹko rẹ? Bẹni/ Bẹko

33a. If Yes, explain_____

33a. Bẹni, Şe alaye_____

33b. If No, explain_____

33b. Bẹko, Şe alaye_____

34. Are you having difficulties with your teachers? Yes No

34. Njẹ o ni işoro kankan pelu awon oluko rẹ? Bẹni Bẹko

35. If yes, what sort of difficulties?

35. Ti o ba jẹ bẹni, iru işoro wo ni?

36. Do you have guidance counsellors in your school? Yes No

36. Njẹ ẹ ni awon Oludamoran Atonisona ni ile-Ẹko rẹ? Bẹni Bẹko

37. Have you ever gone to see them? Yes No

37. Njẹ o ti lo sọdọ wọn ri? Bẹni Bẹkọ

38. If yes, what did you go to see them for?

38. Ti o ba jẹ bẹni, ki ni o lọ ri wọn fun? _____

39. If you have a problem at school would you go to the guidance counsellor for help? Yes No

39. Ti o ba ni idaamu ni Ile-Ẹkọ, nje iwọ o lọ ri Oludamọran Atonisọna? Bẹni Bẹkọ

40a. If yes, why would you go?

40a. Bẹni, Ẹ alaye _____

40b. If no, why not?

40b. Bẹkọ, Ẹ alaye _____

UNIVERSITY OF IBADAN LIBRARY

**APPENDIX FOUR
HOSPITAL ANXIETY AND DEPRESSION SCALE (HADS)**

Tick the box beside the reply that is closest to how you have been feeling in the past week.

D	A		D	A	
		I feel tense anxious/worried:			I feel as if I am restless/slow:
	3	Most of the time	3		Nearly all the time
	2	A lot of the time	2		Very often
	1	From time to time, occasionally	1		Sometimes
	0	Not at all	0		Not at all
		I still enjoy the things I normally enjoy:			I get a sort of frightened feeling like 'butterflies' in the stomach:
0		Definitely as much	0		Not at all
1		Not quite so much	1		Occasionally
2		Only a little	2		Quite Often
3		Hardly at all	3		Very Often
		I feel afraid as if something bad is about to happen:			I have lost interest in the way I look:
3		Very definitely and quite badly	3		Definitely
2		Yes, but not too badly	2		I don't take as much care as I should
1		A little, but it doesn't worry me	1		I may not take quite as much care
0		Not at all	0		I take just as much care as ever
		I can laugh and see the funny side of things:			I feel restless as I have to be on the move:
0		As much as I always could	3		Very much indeed
1		Not quite so much now	2		Quite a lot
2		Definitely not so much now	1		Not very much
3		Not at all	0		Not at all
		Worrying thoughts go through my mind:			I look forward with enjoyment to things:
3		A great deal of the time	0		As much as I ever did
2		A lot of the time	1		Rather less than I used to
1		From time to time, but not too often	2		Definitely less than I used to
0		Only occasionally	3		Hardly at all
		I feel cheerful:			I get sudden feelings of panic:

3		Not at all		3	Very often indeed
2		Not often		2	Quite often
1		Sometimes		1	Not very often
0		Most of the time		0	Not at all
D	A		D	A	
		I can sit at ease and feel relaxed:			I can enjoy a good book or radio or TV program:
	0	Definitely	0		Often
	1	Usually	1		Sometimes
	2	Not Often	2		Not often
	3	Not at all	3		Very seldom

Please check you have answered all the questions

UNIVERSITY OF IBADAN LIBRARY

APPENDIX FIVE
ROSENBERG SELF-ESTEEM SCALE

Instructions: Below is a list of statements dealing with your general feelings about yourself. If you strongly agree, tick **SA**; if you agree with the statement, tick **A**; if you disagree, tick **D**; and, if you strongly disagree, tick **SD**.

	Strongly Agree	Agree	Disagree	Strongly Disagree
1. On the whole, I am satisfied with myself.				
2. At times I think I am no good at all.				
3. I feel that I have a number of good qualities.				
4. I am able to do things as well as most other people.				
5. I feel I do not have much to be proud of.				
6. I certainly feel useless at times				
7. I feel that I'm a person of worth, at least on an equal plane with others				
8. I wish I could have more respect for myself				
9. All in all, I am inclined to feel that I am a failure				
10. I take positive attitude towards myself				