

**PSYCHOLOGICAL STRESS AND COPING MECHANISM AMONG IN-SCHOOL  
ADOLESCENTS IN IBADAN NORTH LOCAL GOVERNMENT AREA, IBADAN, OYO  
STATE, NIGERIA**

**BY**

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## ABSTRACT

Stress is defined as the state of psychological and physiological imbalance that results from an individual not being able to manage situational demands of life. Chronic stress results in psychological stress which affects an individual's health/wellbeing and about 16% of the global burden of diseases is related to mental health problems among adolescents. Few studies have been done on the concept of psychological stress within Nigeria, hence the need to investigate on the psychological stress and the coping mechanisms among in-school adolescents in Ibadan North Local Government Area, Oyo State, Nigeria.

The study was a descriptive cross-sectional survey which employed a multistage sampling technique. This study was conducted in schools located in Ibadan North Local Government Area. Four hundred in-school adolescents were recruited for this study and a multi-stage sampling was used in selecting them in accordance with the sample size. A semi-structured self-administered questionnaire was employed to document their socio-demographic characteristics, knowledge, prevalence, coping mechanisms and associated factors of Psychological stress. The Brief Cope were adapted to screen for the coping mechanisms and General Health questionnaire were adapted to screen for the prevalence of psychological stress. Knowledge score was measured on a 16-point scale and scores ( $\leq 6$ ) were categorised as poor, ( $\leq 11$ ) as fair and ( $\leq 16$ ) as good knowledge. The prevalence of psychological stress was assessed on a 36 points scale and scores ( $\geq 15$ ) were categorised as being psychologically stressed and scores ( $< 15$ ) as not being psychologically stressed. Data was analysed using SPSS version 23, using descriptive and inferential statistics at  $< 5\%$  level of significance and the results were presented in prose, tables, and charts.

The mean age of respondents was  $14 \pm 2$  years, more than half of the respondents (86.9%) were within the age of 12-16 years. About (47.3%) of the respondents were males while (52.5%) were female. The awareness level was low (43.8%) and majority of respondents had no knowledge (55.8%) about Psychological stress. The overall knowledge score obtained from the respondents was  $7.7 \pm 2.7$ . The prevalence of Psychological stress was determined to be (56%) and the most common classified coping mechanisms observed among the respondents (49.1%) was avoidance coping mechanism. The core factors that were significantly associated with prevalence of psychological stress using chi-square and regression analysis are: seeing things from a negative

view, having too many responsibilities at home, getting a lot of expectations from parents, getting too many expectations from teachers, having pressure to fit in with peers, being ignored by the one I like and not getting along with my boy/girlfriends. Using regression analysis, seeing things from a negative point of view was observed to be the major determinant of psychological stress among the Adolescents (OR: 1.931 and p-value: 0.003).

A high prevalence of psychological stress and high frequency of poor knowledge of psychological stress were observed among the respondents. Hence, the need for more sensitization on psychological stress and its coping mechanisms by implementing intervention programs that will help to educate teachers, adolescents, and parents.

Keywords: psychological stress (mental), coping mechanisms, in-school adolescents,

Word Count: 500

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## DEDICATION

This research is dedicated to GOD for His wisdom, mercies and grace which He bestowed on me throughout this programme. May his name be praised forever from generations to generations.

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## CERTIFICATION

I certify that this work was carried out by Adeleye Ayomiposi Oluwadolapo from the Department of Health Promotion and Education, Faculty of Public Health, University of Ibadan, Nigeria, under my supervision

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## GLOSSARY OF ABBREVIATIONS

**GHQ**- General Health questionnaire

**IBN**- Ibadan North

**LGA**- Local Government Area

**Pg.** Page

**WHO**- World Health Organization

**SPSS**- Statistical package of Social Science

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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

Stress is experienced by everyone as part of the everyday life. It can either have a positive or negative effect on an individual. Stress resulting from negative events is called distress while eustress is stress that results from positive events (Stoppler and Marks 2010). Stress is said to be positive when it boosts an individual's energy to achieve a desired goal thereby resulting in happiness and fulfilment while distress occurs when an action or work does not bring happiness or relief (Muhammad, 2010). Stress is specifically defined as the state of psychological and physiological imbalance that results from an individual not being able to manage situational demands of life. Excessive stress can lead to poor decision making by disrupting the performance of an individual thereby resulting in a variety of emotional, behavioural, and physiological problems (Muhammad, 2010).

Psychological stress is a challenging physiological and mental state in which a person lacks the ability to take good decision, manage stress effectively and take care of one's emotions adequately (Franklin, 2004). Stress is a non-specific response that varies in its degree of response from one person to another. How a stressful situation is being perceived by an individual will determine whether the stressful situations are seen as eustress or distress (Hargrove et al, 2013). Psychological stress can also be developed through peer pressure among students, this can lead to poor decision making and hurtful feelings and untimely death if it is not effectively managed (Chandra and Batanda, 2006).

The intensity of a stress faced by an individual will determine the possible responses from being a mild everyday stress, to distress and traumatic stress. The first body's reaction to a new event, challenge or demand that triggers the fight or flight response in the body is called the acute stress. This type of stress helps the body and brain to develop good coping responses towards future stressful situations (Timothy, 2016). The emotional response that comes because of a stress that occurs for a long period of time in which an individual has no/less capacity for control is called chronic stress. Prolonged exposure to stress could result in the breakdown of the

hormonal system subsequently resulting in elevated blood pressure and heart diseases (Selye, 2016). The various factors that challenge an individual's capability of managing situational demands can be referred to as stressors. These include: personal changes, environmental events, loss of a loved one, financial crises, school assignments etc. An individual's response to stress is determined by the person's perception of the situation, past life experience, the presence or absence of social support/networks and individual differences regarding how we react to stressful situations (Hellriegel, et.al, 2017). The period of adolescence has been observed to be a time of rapid pubertal growth, need to make academic and professional decisions, identity development, orientations towards the future changes and greater expectations from families and teachers among adolescents. These changes tend to become overwhelming and thereby result in chronic psychological stress (Durualp, 2013).

The various sources of psychological stress result from events that threaten to disrupt people's daily functioning causing them to adjust. These sources of stress are referred to as stressors. Stressors are demands made by the internal or external sources of stress as every circumstance or event that threatens to disrupt people's daily functioning and causes them to adjust. However, they differ in the degree of severity and duration (Bernstein et al,2008). Setting high goals, being a perfectionist and comparing self with others and self-degradation are some of the personal factors that can cause psychological stress among adolescents (Jeanne et al., 2017). The school also contributes a major stressor among adolescents and the stressors include: too much homework, unsatisfactory academic performance, preparation for test/examination, lack of interest in a particular subject, peer pressure, making new friends and teacher-student relationship result in psychological stress among others and these can result to depression (Simuforosa, 2012). Also, poor parent-child communication can lead to a shallow understanding of parent's expectation towards their children which will results in psychological stress among adolescents (Kempf, 2011).

Romantic experiences have also been observed to have a great relationship with intense emotion, breakups, issues of rejection, need for intimacy and support. As such, this might result in a challenging moment for adolescents' thereby increasing risk of psychological dysfunctioning

(Davila, Stenberg, Kachcdourian, Cobb and Funchan, 2004). Stress from peer pressure can lead to poor decision making and hurtful feelings (Chandra and Batada, 2006).

Psychological stress affects an individual's health/wellbeing and the learning ability of an individual. Other aftermaths of psychological stress among adolescents are: low grades in school, poor work performance, depression, eating disorders, elimination disorders, suicidal behaviours and dissociative disorders, anxiety, poor concentration, aggression, physical illness, substance use etc (Mapfumo, 2012).

One of the prominent coping style models has categorized coping mechanisms among individuals into two dimensions which are: the problem focused coping mechanism, which involves solving the problem and gaining more information. Coping among adolescents can be measured in different ways which include by observation, self-reports, and significant others (e.g., parents and teachers). The ability to adapt a coping strategy is determined largely by the stressor being experienced. Seeking social support in solving peer stressors have resulted in the development of positive outcomes in the early phase of adolescence, it has helped to reduce the risk of internalizing difficulties including depression, loneliness, and anxiety (S.M. Chan, 2012).

## **1.2 Statement of the problem**

Worldwide, it has been observed that one in six people are aged 10-19 years and about sixteen percent of the global burden of disease and injury that occur among this group are mental health conditions. Half of all mental conditions start by age 14 and most of them go undetected and untreated thereby resulting in depression and suicide that has been observed to be the leading cause of deaths among adolescents all over the world (WHO, 2019). About twenty percent of adolescents around the world have been estimated by the World Health Organization to have mental health problems yet it remains under diagnosed and under treated (WHO, 2019).

Studies have shown that there is a higher rate of depression in Adolescents in low income and middle-income countries. Ninety percent of the world's children and youths are from the low- and middle-income countries and about seventy-five percent of suicide deaths are recorded globally (Britt, Genevieve, Marianne, Frank, 2016). It has also been observed that about twenty



percent of the teenagers would have a lifetime prevalence of depression by the end of their adolescence stage (Vanathas, Sandhya, 2018).

The Adolescent stage has been observed to be full of experiences and challenges that are perceived as life stressors to the mental health of adolescents (Morenike et al., 2017). Adolescents have been observed to suffer psychosocial problems during this development which include emotional problems like anxiety and depressive symptoms (Sharon, 2019). Personal factors and different environmental events results in distress among adolescents and not just the school factors (Snehlata, 2017).

Psychological stress among Adolescents results in reduced self-esteem, student's academic achievement and personal development (Mohammad, 2010). Psychological stress affects the mental functioning of students (Arilewola, 2018). This harsh long-lasting stress can both declined the academic effectiveness of students, increase the potential use of drugs along with the negative behaviours that can result to death (Mapfumo, 2012).

There is a negative association of stress with mental, emotional, and physical morbidities. Studies have shown that the body responds to stress physically or psychologically which result in either physical illnesses or mental disorders but it has been observed that the effect of psychological responses are more prevalent among adolescents than that of physical illness such as heart disease (Suresh, 2015). The effect of physical response to stress will take a while before it develops in the body but the effect of psychological response reacts faster in the body resulting in suicidal ideations in a short period of time if it is not managed adequately.

Also, through literature search and knowledge gained, a few studies have been done on the prevalence of psychological stress and identifying the various coping mechanisms employed among in-school adolescents in Ibadan and in Nigeria at large. Therefore, this study will serve as a baseline study on the prevalence of psychological stress and its coping mechanisms among in-school adolescents in Nigeria.

### **1.3. Justification of the study**

Students have been shown to be an important group in the society because they are the future of the country, ensuring that they are mentally healthy is vital so that they can grow up to become healthy and responsible adults resulting in the growth and development of the society. Also, the adolescence stage has been observed to be a period in which adolescents are susceptible to the development of psychological stress due to the various challenges that they come up with at this stage and the false level of maturity in handling the challenges adequately.

Fortunately, it has been observed that many adolescents have no or little resilience in coping with daily challenges of life (Oluwapelumi, Obioma and Eme, 2018). Effective and appropriate coping strategies have been observed to reduce the impact of the newly experienced situations on mental health (Saiful, 2010). There is need to investigate for the prevalence of psychological stress and coping mechanisms adopted by students in this stage (both the negative and positive) to reduce the rate of suicidal tendencies among in-school adolescents (Alika, Akanni and Akanni, 2016). Also, the in-school adolescents were chosen for this study due to their captive audience and easy accessibility.

A lot of research works have focused on the level of stress among in-school adolescents (Mazumdar et al, 2012), sources of stress among in-school adolescents (Mapfumo, 2012) and effects of stress generally among in-school adolescents (Michaela, Sarah, and Alexandra, 2019) but a few has been done on the concept of psychological stress and identifying the various coping mechanism of psychological stress among in-school adolescents. This study will investigate the nature of psychological stress and the coping mechanism among in-school Adolescents in Ibadan North Local Government Area of Ibadan, Oyo State.

### **1.4 Research questions**

- i. What is the level of knowledge of psychological stress among in-school adolescents?
- ii. What is the prevalence of psychological stress among in-school adolescents?
- iii. What are the associated factors influencing psychological stress among in-school adolescents?

iv. What are the coping mechanisms of psychological stress among in-school adolescents?

### **1.5 Broad Objective**

The purpose of this study is to investigate the nature of psychological stress and the coping mechanism among in-school Adolescents in Ibadan North Local Government Area of Ibadan, Oyo State.

### **1.6 Specific Objectives**

- i. To assess the level of knowledge of psychological stress and its preventive practices among in-school adolescents in Ibadan North Local Government Area of Ibadan, Oyo State.
- ii. To determine the prevalence of psychological stress among in-school adolescents in Ibadan North Local Government Area of Ibadan, Oyo State.
- iii. To identify the associated factors of psychological stress among in-school adolescents in Ibadan North Local Government Area of Ibadan, Oyo State.
- iv. To document the coping mechanism used by in-school adolescents with psychological stress in Ibadan North Local Government Area of Ibadan, Oyo State.

## 1.7 Research hypothesis

### Hypothesis one

There is no significant association between socio-demographic characteristics (age, gender, parent's socio-economic status, family structure) of respondents and their knowledge of psychological stress

### Hypothesis two

There is no significant association between socio-demographic characteristics (age, gender, parent's socio-economic status, family structure) of respondents and the prevalence of psychological stress

### Hypothesis three

There is no significant association between the prevalence of psychological stress and the associated factors

### Hypothesis four

There is no significant association between associated factors types and student's coping mechanism towards psychological stress

## 1.9 Operational definition of terms

**Psychological stress:** This is a feeling of mental strain and tension to situations resulting in anxiety and depression (Lynch, 2013).

**In-school Adolescents:** Persons between ages 10 and 19 that are schooling.

**Coping mechanisms:** this refers to special efforts both behavioural and psychological that people employ to reduce stress.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

This review of literature presents research work that has been done in Western and European countries in psychological stress and its coping mechanisms studies that have been conducted in other countries globally including Nigeria were also presented.

#### 2.1.0. Stress

Stress occurs when an individual experience daily demands that exceeds the capability in which he/she can cope with (Byrne et al., 2007). This is experienced as part of everyday life by both young people and adults. Eustress which is referred to as the positive stress helps to energize and maintains goal directed behaviour (Mapfumo, 2012) while distress (negative stress) negatively affect the long term physical and mental wellbeing of an individual. Chronic stress (distress) can lead to psychological symptoms which affects an individual's health/wellbeing by inhibiting and suppressing the learning ability of an individual. Among students/adolescents, this results in low grades in school, poor work performance, depression, eating disorders, elimination disorders, suicidal behaviours and dissociative disorders, anxiety, poor concentration, aggression, physical illness, substance use etc (Timothy, 2016). Stress due to peer pressure can also lead to poor decision making, hurtful feelings that can lead to untimely death among students (Chandra and Batanda, 2006). Distress has been observed to be a pivotal health issue that can disrupt an adolescent's capacity in handling the demands that result from daily activities of life (Chandra and Batada, 2006).

#### 2.1.1. Types of stress

There are different categories of stress; they differ in their intensity and time span in which they occur. The intensity of a stress will determine the possible responses to it from been a mild everyday stress, to distress and traumatic stress.

### **2.1.1.1. Acute stress**

This is the body's first reaction to a new event, challenge, or demand which in turns triggers the fight or flight response in the body. This type of stress is not always negative but when it lingers for a long period time, it results in chronic stress. Acute stress might be desirable to the body in some situations since it helps the body and brain to develop good coping responses towards future stressful situations (Timothy, 2016).

### **2.1.1.2. Chronic stress**

This is a response to emotional strain that has occurred for a prolonged period in which an individual perceives that they have no/less capacity to control. Prolonged exposure to stress could result in the breakdown of the hormonal system subsequently resulting in elevated blood pressure and heart diseases (Hans, 2016). There are various factors that affect an individual's perception or build resilience towards chronic stress. They are: An individual's personality, Social connectivity, cultural and religious views, and behavioural skills (Schetter, Christine, Dolbier and Christyn, 2011). Chronic stress reduces resistance towards infection and inflammation in the body thereby suppressing the immune system function in the body (Rohleder and Nicolas, 2016). Chronic stress results in psychological symptoms that are referred to as psychological stress.

### **2.1.2. Dimensions of stress**

Stress can either have a physiological or psychological response in an individual. Therefore, it has resulting physical and psychological symptoms in the body.

#### **2.1.2.1. Physiological (physical) stress**

Stress has a physiological response in which a body reacts to a condition such as threats and challenges (Nachiappan and Vasanthi, 2010). The autonomic nervous system and hypothalamus pituitary adrenal axis are the two major systems that respond to stress in a human body (Ulrich-Lai, Yvonne, Herman and James, 2017). Physiological response to stress can results in changes in eating habits, immunological function, and the increase in the amounts of corticotrophin, vasopressin, and cortisol in the body. The increased level of cortisol in the body will lead to the increase of blood glucose, blood pressure and suppresses the immunological activity in the body

(Aguilera and Greti, 2011). Stress can make an individual susceptible to physical illnesses like the common cold, impaired sleeping, and other psychological health complaints. The type of stressor and individual characteristics (genetics, childhood traumatic experiences) will determine the effect of stress on an individual (Jeronimus, Riese, Sanderman and Ormel, 2014). When stressful situations occur frequently and for a long period of time, it results in the development of diseases.

#### **2.1.2.2. Psychological (mental) stress**

In psychology, stress has been defined as a feeling of strain and pressure. Positive psychological stress always leads to motivation and challenge. (Jeronimus, Riese, Sanderman and Ormel, 2014). This is referred to “Eustress” while negative psychological stress is associated with life’s constraints and demands that exceeds a person’s capabilities which if not managed appropriately, it will result in psychological problems and other range of mental and physical health issues. It is referred to as ‘Distress’ (Mapfumo, 2012). The level/intensity of stress is relative among people. Psychological stress is a challenging physiological and mental state in which a person lacks the ability to take good decision, manage stress effectively and take care of one’s emotions adequately (Franklin, 2004). Sadness, anxiety, distraction, and other symptoms of mental disorders are the various manifestations of psychological stress (Smith, 2003). Also, psychological stress was also defined as an affective behavioural and cognitive response to a crisis event which seen as threatening and it's manifested by anxiety and depressive symptoms (Durualp, 2013). The way an individual perceives a situation will determine the response and how it will be managed. How an individual experiences stress depends on: a) the person’s perception of the situation b) The person’s past experiences c) The presence and absence of social support d) and the individual’s differences /reactions towards stress (Don Hellriegel et al., 2001).

#### **2.1.3. Classified signs and symptoms of psychological stress**

Psychological stress can have several physical or psychological symptoms which can make daily functioning or productivity more challenging.

The warning signs and symptoms of psychological stress can be classified into four groups which are: Cognitive, Emotional, Physical and Behavioural symptoms (Jeanne, Melinda, Robert, and Lawrence, 2017).

Cognitive symptoms are linked with the mental development and functioning of an individual, they include: memory problems, indecisiveness, inability to concentrate, difficulty in thinking clearly, poor judgment, perceiving things negatively, anxiety, constant worries, loss of objectivity, fearful anticipation. These symptoms majorly affect the daily performance of an individual.

Emotional symptoms involves the emotional response towards the effect of chronic psychological stress, they include: moodiness, agitation, restlessness, short temper, irritability, impatience, inability to relax, feeling tense, feeling overwhelmed, sense of isolation, rejection and loneliness, depression, and sadness.

Physical symptoms are the effect of chronic stressful events on the body and they include: headaches, backaches, muscle tension, stiffness, diarrhoea or constipation, nausea, dizziness, insomnia, chest pain, rapid heartbeat, weight gain or loss, skin breakouts (hives and eczema), loss of sex drive/ sexual dysfunction and frequent colds (Jeanne et al., 2017).

Behavioural Symptoms are negative actions of an individual when faced with a chronic stressful situation, they include: eating, sleeping too much or little, isolating from others, procrastination, neglecting responsibilities, alcohol use, substance use (using drugs to relax), nervous habits (nail biting, pacing, teeth grinding and Jaw clenching), Overdoing activities (exercising or over shopping), always fighting others, over-reacting to unexpected problems.

Overtime, chronic stress results in physical and mental disorders which includes: heart disease, hypertension stroke, diabetes, obesity, eating disorders, suppressed immune system, skin irritation, insomnia, depression, anxiety disorders, autoimmune diseases, gastrointestinal disorders, post-traumatic stress disorder, respiratory infections, reproductive issues, thinking/memory problems (Jeanne et al., 2017). Sleep problems e.g., tiredness among adolescents has been associated with poorer psychological stress symptoms, they include: anxiety, depression, and poorer perceived health (Moore, Kirchner, Drotar, Johnson, Rosen, Ancoli- Israel, 2009).



Cognitive difficulties have been found to be a major symptom psychological stress among adolescents (Fernandez-Mendoza, Vela-Bueno, Vgontzas, Olavarrieta-Bernardino, Rasmus-Platon, Bixler, 2009). Another symptom of psychological stress among adolescent is Negative behaviours e.g., aggression, substance use (alcohol/drug use), fighting others (Johnson and Breslau, 2001).

#### **2.1.4 Psychological stress and Adolescence**

Adolescence is a transition period from childhood to adulthood stage i.e., age in between 10-19, where the maturity of the brain and body takes place. This is the period where adolescents go through a time of rapid growth making academic and professional decisions, identity development, orientations towards the future changes and greater expectations from families and teachers, pubertal growth, hormonal changes, they get so overwhelmed by this changes cannot cope with the demands that are associated with it which results in the chronic psychological stress (Durualp, 2013). The physical changes that arise in this stage results in psychological stress among adolescents.

Physical/personal factor, School factor, relationship and social factors are the main sources of stress among adolescents (Kai-win, 2009). It has been observed that as adolescent advances in age, from 11-19 years, the levels of stress increases significantly since they experience self organization and role confusion at this period.

Psychological stress is one of the serious issues that affect a student's life; its effects could be reflected in student's social, academic, and mental health. Psychological stress among adolescents results from stemming from social interaction, academic workload, decision making etc. This results in a major issue for adolescents (Estevez, Martinez, and Musitu, 2006).

Various problems have been discovered to emanate from secondary school experiences and its conjunction with peer relation can results to students becoming psychiatric patients in a short while of the trauma (Meadows, Brown and Elder, 2006). Secondary school managements and counsellors should be involved in the discovering the various predictors of psychological health

of students. This has affected student's behaviours in relations with their academic records, social relation, and intelligence.

## **2.2 Prevalence of psychological stress among adolescents**

Stress and psychological wellness among students in the world is a crucial issue in public health. Stress can be defined as the body's response to psychological perception of pressure. Psychological stress happens when an individual perceives that the environmental demands exceed his or her adaptive ability (Sheldon et al, 2007). Psychological distress in general terms is called psychological discomfort and it leads to depressive symptoms among individuals. This can present itself in so many ways and at many levels of severity, they include: Sadness, Anxiety, Depression and Distractions (Ridner, 2004).

### **2.2.1. Prevalence of psychological stress (Internationally)**

Shamsuddin et al, (2013), cited that there is a high prevalence of stress, anxiety, and depression 27.09%, 47.1% and 27.1% respectively in certain group of Turkish students. A study was done in India among 3141 adolescents in private and public secondary school students within the age range of 15-19 years and a one month prevalence rate of depressive symptoms was reported to be 57.7% (Nagendra et al., 2012). A study was conducted in the United States of America among 863 adolescents and 18% prevalence rate of depression was reported (Saluja, 2004). The prevalence of psychological stress in a study among clinical medical rehabilitation students in Obafemi Awolowo University, Ile-Ife was reported to be 47.3 % (Arilewola, 2018).

### **2.2.2. Prevalence of psychological stress (Nationally)**

The study conducted in Ido Ekiti among 540 secondary school students reported a prevalence of 16.3% depressive symptoms (Oderinde et al, 2018).

The prevalence rate of psychological distress among school-going adolescents in Benin-City was reported to be 30.9% which implies that three out of every ten school-going adolescents has a probability of being psychologically stressed (Akanni and Otakpor, 2017).

The prevalence of depressive symptoms among in-school adolescents was observed to be 21.2% in a rural district of Egbeda, Local government area (Fatiregun and Kumapayi, 2014).

A cross sectional study was conducted among 484 adolescent's students in two rural districts of

South Western Nigeria and a prevalence rate of depression were observed to be 12.1% (Omigbodun et al., 2008).

The prevalence of psychological stress because of internet addiction among adolescents was found to be 26.9% in a study conducted in Enugu (Okwaraji and Emmanuel, 2015).

### **2.3 Associated factors of psychological stress**

The sources of psychological stress results from any event that threatens to disrupt people's daily functioning causing them to adjust. These sources of stress are referred to as stressors. Stressors are demands made by the internal or external sources of stress as every circumstance or event that threatens to disrupt people's daily functioning and causes them to adjust. However, they differ in the degree of severity and duration (Bernstein et al, 2008).

The various sources of psychological stress experienced by students in the home and at work (school) are classified into internal and external stress.

#### **2.3.1. Internal psychological stress**

These are stress that comes from within; they occur as a result individual's personality or differences. This includes: Pessimism, Inability to accept uncertainty, rigid thinking, Negative self-talk, Unrealistic expectations, Perfectionism, Comparing one with others, Low self-esteem etc. (Jeanne et al., 2017).

#### **2.3.2. External psychological stress**

This occurs due to the influence that the environmental exert on an individual, they can be from the family, work/workplace, peers, and friends. Physical conditions such as poor lighting, loud noise, poor seating arrangements, and extreme temperatures can result in chronic stress. Living in extreme climates can heighten an individual's stress level (Rajasekar, 2013). A study on "the stress sources among college students in Taiwan" has observed that biological stress is one of the major stressor experienced by adolescents in secondary schools. This is because of the sexual and physical maturation that occur during their period of puberty resulting in hormonal changes (Kai-wen, 2010). Adolescents are affected both internally and externally because of these biological stressors. Internally, the body undergoes hormonal changes at this crucial phase resulting in emotional disorders like depression, anxiety, suicide, and risky behaviours when it is

not identified and managed promptly. The external biological factors that can result to psychological stress among in-school adolescents are: parent's divorce, domestic violence, bad company, and unhealthy habits bringing about a change in the adolescent's personality (Kai-wen, 2010).

The major sources of stress among adolescents can be grouped into five types and they are: Personal, School, Family, Peer-pressure, and Romantic relationships factors. They are further explained below:

### **2.3.3. Personal factors**

Another major stressor among adolescents is physical/mental factor; adolescents are mostly concerned about their physical appearances than about other aspects of their lives. This is more peculiar with girls than boys and as such girls may feel upset by their appearance. Setting high goals, being a perfectionist and comparing self with others and self-degradation may all cause psychological stress among adolescents resulting in depression (Jeanne et al., 2017).

### **2.3.4. School factors**

The school also contributes a major stressor among adolescents in schools and the stressors include: too much homework, unsatisfactory academic performance, preparation for test/examination, lack of interest in a particular subject, peer pressure, making new friends, teacher-student relationship. Since teachers and parents use academic achievement as a sole criterion for evaluating a student's performance at school, the pressure to perform well and exceeds the expectations of parents and teachers can place a great deal of psychological stress among adolescents (Eckotlu and Chafia, 2006).

### **2.3.5. Family factors**

The family can also be a source of stress for secondary school students; some families place a great deal of stress on students by telling them that they need to acquire good grades, lack of parent-child communication and shallow understanding of each other's expectation results in psychological stress among adolescents. Other family stressors are: the failing economy resulting parents losing their jobs, receiving low income, poverty, arguments/ divorce between parents, illness, or death of family member etc. (Kempf 2011).

### **2.3.6. Romantic relationships**

Also, adolescents are confronted with stress stemming from romantic partners or dissatisfaction with body image (Krienke-Seiff, 2009). Adolescents who are observed to be in a romantic relationship or have experienced it are more likely to experience symptoms of depression (Davila, 2008). Romantic experiences have a great link with intense emotion, breakups, issues of rejection, need for intimacy and support. As such, this might result in a challenging moment for adolescent's thereby increasing risk of psychological dysfunctioning (Davila, Stenberg, Kachcdourian, Cobb and Funchan, 2004). It has been observed that sexual activity has a relationship with romantic experiences. This will lead to poorer psycho-social functioning resulting in depression and suicidal behaviours (Shulman, Weidman and Schelyer, 2008). Also, poor family functioning has been reported to strengthen the relationship between romantic experiences and depressive symptoms in adolescence (Steinberg and Davila, 2008).

### **2.3.7 Peer pressure**

This is defined as the direct influence of people of the same age group by encouraging them to do something or something contrary (Gikonyo and Kageni, 2016). Peer pressure is not just restricted to face-face interactions but more to digital interaction. Social media has brought about greater opportunities for adolescents to instil/experience pressure on daily basis (Okwaraji and Emmanuel, 2015). Adolescence is a stage when an individual is mostly susceptible to peer-pressure since peers have important influence on behaviour at this stage. Peer pressure has been referred to as the hallmark of adolescent's experience (Joseph, Joanna, David, Megan and Emily, 2012). Thus, has been widely recognized as an essential factor that leads to the initiation of substance use in adolescents. Stress from peer pressure can lead to poor decision making and hurtful feelings (Dumas, Ellis, and Wolfe, 2012).

Teen stress is often difficult to recognize and parents and educators need to know the impact of stress on the adolescent to provide the necessary support and help them deal with the multiple issues.

## **2.4 Coping mechanisms for psychological stress**

Coping mechanisms refers to the various responses an individual adopts when faced with a stressor (Harrington and Rick, 2013). One of the prominent coping style models has categorized coping mechanisms among individuals into two dimensions which are the problem focused coping mechanisms, which involves solving the problem and gaining more information (Compas, Sarah, Alexandra, Kelly, Waston, Meredith, Gruhin, Jennifer, Ellen and Jennifer, 2017) and emotion focused coping mechanisms which involves employing internal strategies (e.g., worrying, self-blame), external strategies (yelling) to reduce emotional distress.

### **2.4.1 Problem-focused coping mechanisms**

The problem focused coping mechanisms involves solving the problem and gaining more information to avoid similar information in the future. This is referred to as approach/active coping mechanism (Harrington and Rick, 2013). Seeking social support from friends and families has been identified as part of the problem focused coping mechanism. This involves adolescents seeking help from others to exert control over a stressful situation (Compas et al, 2017).

### **2.4.2 Emotion-focused coping mechanisms**

Emotion-focused coping mechanisms involves methods to reduce the emotional distress by employing internal strategies (e.g. worrying, self blame), external strategies (e.g. showing negative anger or sadness by yelling/hitting) and avoidance which simply refers to an individual psychologically ignoring a stressor(Harrington and Rick, 2013).Another name for emotion-focused coping strategies is avoidance coping in contrast to approach coping mechanism (Harrington et al, 2013).Coping among adolescents can be measured in different ways which include by observation, self-reports and significant others(e.g. parents and teachers). The ability to adapt a coping strategy is determined largely by the stressor being experienced. For example, when dealing with an uncontrollable stressor such as parental conflict or abuse, an avoidance coping mechanism is best suited for such situation, since they help me to reduce the negative emotion without the ability of solving the problem itself (Brannon, Linda, Feist, and Jess, 2009). It has been observed that controllable interpersonal stressor can be modified by using problem solving coping styles which has resulted in positive outcomes (Brannon et al, 2009). Seeking

social support in solving peer stressors have resulted in the development of positive outcomes in the early phase of adolescence, it has helped to reduce the risk of internalizing difficulties including depression, loneliness, and anxiety (Chan, 2012).

### **2.4.3. Personality and coping mechanisms**

Personality of an individual plays a major role in the way stress is perceived and managed (Ebstrup, Eplöv, Pisinger and Jørgensen, 2011). Personality traits are the established individual differences which show the distinct habits and patterns in people's thoughts, feelings, attitudes, and behaviours in encountered situations (Fayez and Labib, 2016). This has been observed to affect an individual's perception, appraisal, emotional responses, and attitudes to a situation (Kozako et al, 2013).

Every individual can be categorized into Type A, B C and D personality. An individual with a Type A personality has a continual sense of urgency, an excessive competitive drive, always in a hurry/ impatient, obsessive about winning and do not have the ability to spend leisure time productively. They are often described as "Workaholics" (Radsephr et al, 2016). These people are likely to be under chronic psychological stress even in minor situations which makes them prone to cardiovascular diseases (Hisam et al, 2014).

People with Type B personality are easy going; they work at their own pace with no need to prove their achievement, flexible and can easily adapt to changing conditions easily (Radsephr et al, 2016). They have a desire to be successful, but they are not excessively ambitious as the Type A individuals. It has been observed that people in this category do not get stressed easily; they are able to control their anger, anxiety, and temper (Hannah and Akmal, 2016).

Therefore, Individuals with Type A personality are at greatest risk of getting heart attacks than people with Type B personality. Type C individuals are said have negative personality traits like non-assertiveness, passiveness, and incapability. However, they possess some positive traits like being loyal to people, comply easily with rules and exhibit cooperative behaviours (Durai, 2010). These individuals are considered to be introverts, intelligent, interested in details, like to discover new things and are eager to have a successful life (Ansari et al, 2013). Type C's have inadequate

coping styles in stressful situations which will affect their immune and endocrine responses to chronic stress, so they get depressed easily (Zetu et al, 2013). Due to their stress levels, Type C individuals are prone to cardiovascular diseases (Cardwell& Flanagan, 2005).

Type D individuals have a distressed personality due to their negative and pessimistic view of life. They have been observed to have greater feeling of anxiety, worry, unsatisfying, have fewer friends, feel uncomfortable with strangers, and have a poor social life (Radsephr et al, 2016). In respect to their traits, they suffer from high levels of chronic stress, emotional difficulties, and social difficulties, i.e., they are prone to have many mental disorders/illnesses such as depression, anxiety, pessimism and worry etc (Polman et al, 2010).

Progressive Muscle Relaxation Technique focuses on tightening and relaxing each muscle group of the body with the goal of consciously producing the body's natural relaxation response, characterized by slower breathing, lower blood pressure, and a feeling of wellbeing (Carter, 2003). Problem solving, cognitive interventions and relaxation techniques are widely used to combat stress among adolescents.

Visualizations, meditation, and imagery are stress management techniques that has been sufficiently proven, it helps to reduce student stress and improve test performance by imagining them achieving their goals. It is been proven that optimists that those who easily shrug off failures and go for successes are healthier, less stressed, and more successful. Also, to combat stress, good sleep/rest might be required.

Research shows that, those who are sleep-deprived have more trouble learning and remembering resulting in low performance in many areas. Students can also develop their stress management simply by eating a balanced diet and getting sufficient sleep. They can add to that by maintaining a schedule, including regular waking, and sleeping hours (Nivethitha and Rita, 2016). Other ways are to be realistic, make plan to divide larger tasks to small parts and working through one by one, develop assertiveness training skills i.e., learn how to state your feelings in polite way and not overly aggressive or passive. Rehearse and practice situations which can result in



psychological stress. Learn Decrease negative self-talk, challenge negative thoughts about yourself with alternative neutral or positive thought.

## 2.5. Conceptual framework

### Precede model

The PRECEDE framework was first developed by Dr Lawrence Green and colleagues in the 1970's to address the lack of direction and adequacy of public health promotion to sufficiently plan before implementing an intervention. (Green and Kreuter, 2005). The PRECEDE is an acronym that stands for predisposing, reinforcing, and enabling constructs in educational environmental diagnosis and evaluation. The theoretical framework used in the development of this study was the PRECEDE-PROCEED model. The model is a diagnostic tool which is used to analyse certain health behaviours. and is a planning model. It does not just predict or explain factors linked to the outcomes of interest, but offers a framework for identifying intervention strategies to address these factors. This theory is based on the premise that educational diagnosis of a problem is important when developing and implementing an intervention plan, it also helps to understand the causal factors of any given public health behaviour.

The three key concepts of this model are explained below:

**Predisposing factors:** these are factors that motivate or give reasons for an action. These includes: knowledge, attitudes, cultural beliefs, and readiness to change.

**Enabling factors:** these are factors that encourage an individual to behave on what they are predisposed to do. They are: supportive policies, available resources, assistance, and services.

**Reinforcing factors:** these are factors that enforce the desired behaviour change in an individual they are: family, friends and peers that give social support, identity and role definition, economic rewards and social norms will influence the extent to which adolescents manage psychological stress.

## 2.6 APPLICATION OF THE PRECEDE MODEL

**Predisposing Factors:** Based on this study, the Predisposing factors included their sociodemographic characteristics, for example, the age of the respondent has a significant association of psychological stress. Adolescents within the age range of 13-15 years old in the local government area had the highest frequency of being psychological stressed. So these characteristics could be the reason for the adolescent's psychological stress. Questions on predisposing factors include: (Section A and B: all socio-demographic questions – Q1 to Q20, and knowledge on Psychological stress – Q21 to Q30).

**Reinforcing factors:** These were the factors which came to play after a behaviour has been initiated. That is, after the lifestyles that could influence/prevent adolescents to psychological stress. For example, assistance from youth counseling centers, understanding parents and supportive parents can help to prevent psychological stress. Questions on reinforcing factors include: Q32-Q55.

**Enabling factors:** These were the factors seen to motivate or provide a reason for the adolescents to exercise and eat healthy. For example, the various coping strategies that helps to reduce the prevalence of psychological stress etc Questions on enabling factors include: Q69-Q88.

**Behaviour:** This is the likelihood of the adolescent to adopt the behaviour that either encourage or prevents the prevalence of psychological stress. Questions on behaviour include: Q56-Q67.

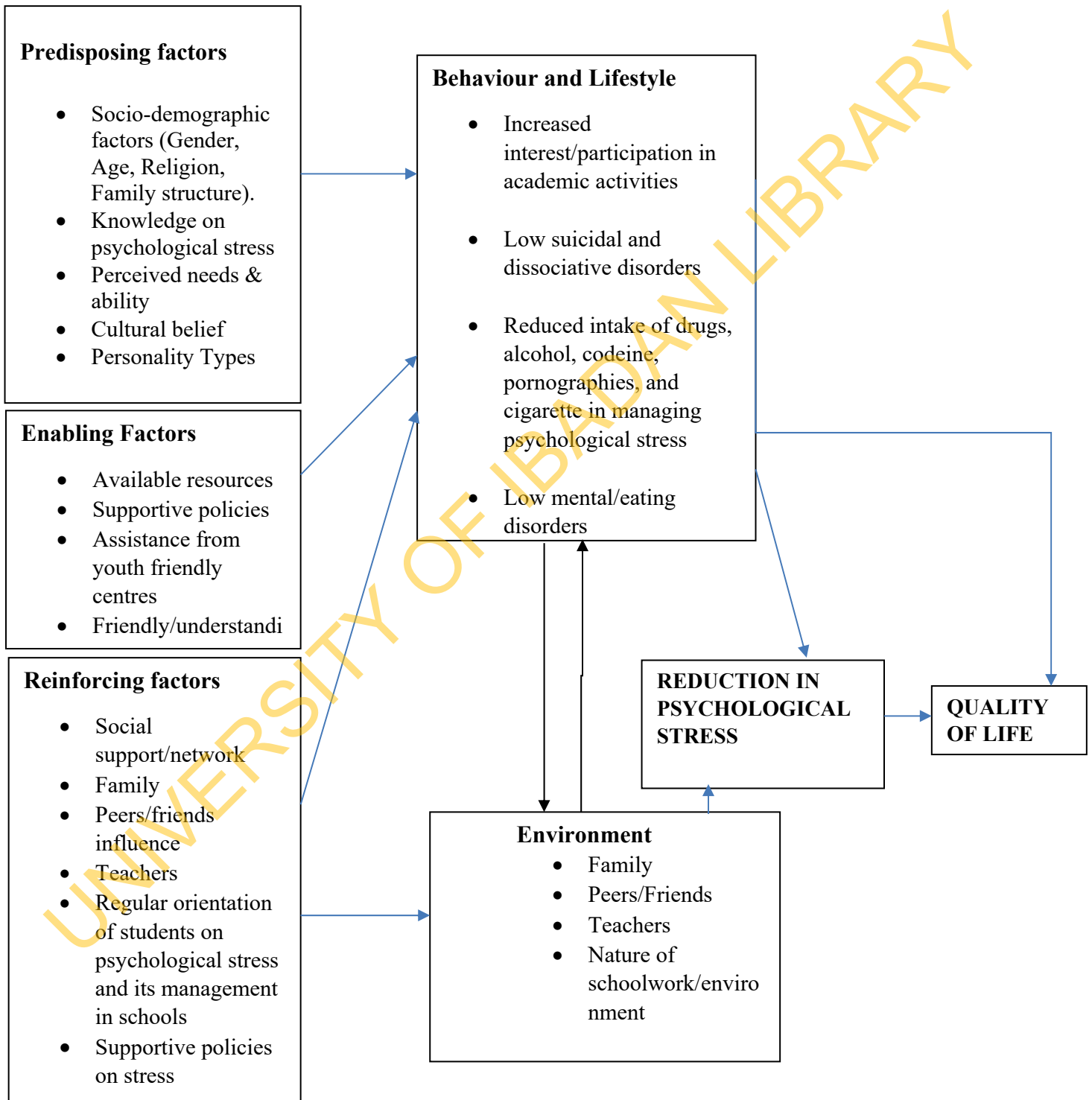
**Environment:** The environment, which is Local government of the schools can be a factor to influence their behaviours. Also, the school and family environment of adolescents can either prevent or influence the prevalence of psychological stress. Questions on environment include: Q38-Q48.

**Health:** Outcome of adopting effective coping strategies will help to prevent the prevalence of psychological stress. Whereas, not adopting the needed positive coping strategies will increase

the prevalence of psychological stress. This was measured by measuring the knowledge, prevalence and coping strategies among the adolescents.

**Figure 2.1 Diagram illustrating precede model**

The model discussed above is conceptualised below:



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Research design**

A cross sectional descriptive quantitative design was used in this study to get a snapshot on the level of psychological stress and its coping mechanism among in-school adolescents. A quantitative research approach was employed to find patterns, averages and be able to make predictions using a well-structured questionnaire to measure the various variables investigated in the study.

#### **3.2 Study area**

Ibadan-North Local Government is one of the 33 local government areas within Oyo state, Nigeria. The total population of Ibadan-North as projected is 432,900 with the population of adolescents (10-19 years) being 60,570 (National Population Census 2006). Ibadan-North local government consists has its headquarters located at Agodi Gate, Ibadan and consists of twelve wards. The inhabitants of this local government area consist of multi-ethnic nationalities with Yoruba being the dominant group. The LGA houses various educational institutions such as the premiere University of Ibadan, University college hospital (UCH) and the polytechnic Ibadan. There are a total number of 96 secondary schools in the local government area, 42 government schools and 54 registered private schools. The presence of these educational facilities has brought about the increase in the rate of development in the local government area. Also, there are several health centres like Adeoyo Hospital and other primary health care and health posts located in the different wards. The selected schools have their location in the following places in the local government; Bodija, Sango, Ikolaba, Agbowo, Total Garden, Yemetu, Ijokodo etc.

#### **3.3 Study population**

The study was conducted among secondary school students within the age range of 10 to 19 years in Ibadan North Local Government area, Oyo state.

### 3.4 Inclusion/exclusion criteria

All female and male students within the age range of 10-19 years in private and public secondary schools in IBNLGA that gave their consent were included in the study while male and female adolescents with the history of mental disorders were excluded.

### 3.5 Sample size determination

Sample size for this study is estimated from the Leslie Kish formula for single proportion which is as follows:

$$N = \frac{Z^2 pq}{d^2}$$

N= Minimum sample size

Z= Standard normal deviation set at 1.96 normal interval

p= Proportion estimated to be obtained in the target population {prevalence of psychological distress among in-school adolescents is 30.9 % (Akanni and Otakpor, 2017)}

q= Proportions that does not have the characteristics being investigated i.e., q=1-p

$$q = 1 - 0.309 = 0.691$$

d= precision limit (limit of error) for the purpose of this study, considering that the student's population is above 10,000; the Cochran's formulae is appropriate to be applied here. Therefore, 95% confidence interval will be assumed for p that is expected to be about 30.9% with a margin error not more than 0.05

$$\text{Therefore, the sample size } N = \frac{(1.96)^2 \times 0.309 \times 0.691}{0.05^2}$$

$$N = \frac{0.8203}{0.0025}$$

$$N = 328$$

Therefore, the Sample size is 328

The sample size was increased to 400 to address any possible case of incomplete response.

### 3.6 Sampling Procedure

The eligible participants were selected using a multistage sampling method which involves the following stages:

**Stage 1-**The list of all secondary schools in Ibadan-North local government was obtained from the Local Education Authority. The schools in the local government were stratified into public and private schools (42 public schools and 54 governments approved private schools in the LGA) using the simple stratified sampling.

**Stages 2-**These groups of schools were then subjected to simple random sampling by balloting for both the school types.

**Stage 3-** Since the government approved schools were more than the public schools, the ratio of public schools to private schools selected was 2:3. Therefore, four public schools and six private schools were randomly selected from the schools in the LGA.

**Stage 4-** One class each was randomly selected from the junior and senior secondary school arms within each of the 10 selected schools.

**Stage 5-** Proportionate sampling was employed to determine the number of respondents to be randomly selected from the selected junior and senior class.

This was calculated based on the number of boys and girls in each class and the formular used for the proportionate sampling is

Number of apportioned sample size for each class

---

X 100

Number of students apportioned for each class

**Stage 5-** Random sampling was then employed to select the number of respondents from the selected junior and senior class.

The proportionate allocation of the participants who participated in the study is shown in table 3.6.1

**Table 3.6.1 Total number of respondents for both public and private schools**

S/N	School category	Senior class	Junior class	Total
<b>Private schools</b>				
	Maverick College, Sango	20	20	40
	God's Blessing Nursery and Primary School, Yemetu	30	25	55
	Afadabo International School, Sango	22	18	40
	Oritamefa Baptist Methodist School, Total garden	25	15	40
	Bodija International School, Bodija	20	20	40
	Sterling College, Queen Elizabeth Road	10	15	25
<b>Public schools</b>				
	Abadina Grammar School, U. I	0	40	40
	Anglican Commercial Grammar School, Total Garden	0	40	40
	Ikolaba Grammar School, Ikolaba	0	40	40
	Immanuel College	10	30	40
<b>Overall Total</b>				<b>400</b>

**N: B The selection of a class was based on the availability of any of the selected class from each of the senior or junior class in the selected school**

### 3.7 Instrument for data collection

Quantitative data collection method was used for the study. The questionnaire used was a semi-structured, self-administered questionnaire which was constructed in Simple English for proper understanding among the respondents. The questionnaire was structured into six sections in order to measure the variables that were identified according to the Precede Proceed model and literature search.

Section A: Demographic characteristics of respondents

Section B: Knowledge of Psychological stress

Section C: Prevalence of Psychological stress

Section D: Coping mechanisms of Psychological stress

Section E: Factors associated with Psychological stress

The standardized questionnaires used for the study were ‘General Health Questionnaire’ (GHQ-12) and Brief Cope Questionnaire’.

**1) General Health Questionnaire:** This was designed to assess psychological distress in population surveys and epidemiological studies (Goldberg and Williams, 1991). GHQ-12 is a 12-item instrument designed to determine the prevalence of psychological stress among the respondents. All items are rated on a 3 points scale; 0 (never), 1 (sometimes) and 2 (always). The twelve items were summed up and a score above 15 indicates the prevalence of psychological stress.

**2) Brief Cope Questionnaire:** This is a 28-item self-report questionnaire designed to measure effective ways to cope with a stressful life event. This can be used to measure how someone is coping with a wide range of situations e.g., financial, family, school stress etc. It was designed to determine an individual's primary coping styles as either approach or avoidant coping mechanisms (Carver et al, 1989). The avoidant coping are characterized by the subscales: “denial, substance use, venting of emotions, self-blame, self- distraction and behavioural disengagement while approach coping constitute of subscales like active coping, positive



reframing, planning, acceptance, seeking emotional and informational support (Einsenberg et al, 2012).

### **3.8 Validity**

The validity of the instrument was established through the review of relevant literatures by adopting questions from relevant questionnaires of studies like the study, proper scrutiny was done by my supervisor and experts in the field of psychology and public health and the draft instrument was subjected to independent, peer and expert reviews. Also, observations from the pre-test were used to make corrections to the main study to ensure the relevance, accuracy, and appropriateness of the items in the instrument.

### **3.9 Reliability**

The draft instrument was pretested on 10% of the proposed sample size in a local government with similar characteristics with the study area. This was done among 40 students in Oba Abyss Secondary School (which represented the public-school category) and Seed of Life Group of School (which represented the private school category) within Ibadan North - West LGA. Equal numbers of instruments were distributed in the two categories of schools. The local government has similar characteristics with Ibadan North LGA. The Cronbach's Alpha correlation coefficient of the Statistical Package for Social Sciences (SPSS) was used to analyze the pre-test data and the reliability was determined to be 0.937. This was interpreted to be reliable since the correlation coefficient was greater than the average correlation coefficient of 0.5. Ambiguities or deficiencies observed after the pre-test were corrected prior to the survey.

### **3.10 Data collection procedure**

The data collection process took place between June and July 2019. This commenced after a week training of the research assistants. The semi-structured self-administered questionnaire was constructed in English (Appendix II) and completed by the students in their classrooms during the break time according to the school's authority's discretion. This supervision of the students was handled by the trained research assistants and the principal investigator. The students were informed about the nature of the study and assured of confidentiality and anonymity by the researcher, prior to the distribution of the questionnaires. The students were encouraged to

communicate any questions or problems that were encountering, and they were treated accordingly. All administered questionnaires were thoroughly examined for completeness by the principal investigator and research assistants after submission. A total of 400 questionnaires were administered to eligible respondents and they were all correctly filled.

### **3.11 Data analysis**

The questionnaire was serially numbered for the control and recall purpose. Unique identification code was assigned to each respondent's questionnaire for correct data entry and analysis. The processing of the data included sorting, editing, collection and scoring of the questionnaires. A coding guide was designed using Statistical Package for the Social Sciences (SPSS version 23) for effective computer data entry (APPENDIX IV). The quantitative data was analyzed using descriptive and inferential statistics (Chi-square/Fischer exact and Linear Regression). Information obtained was summarized and presented in Tables and Figures. Knowledge was scored on a 16 points scale and it is classified as: 0-6 (poor), 7-11 (fair) and 12-16(good). Prevalence of Psychological stress was scored on a (1-36) score, scores >15 were rated as being psychologically stressed. The data collected was effectively managed by keeping the serially numbered questionnaires in a safe place and the SPSS data was kept confidential on a password protected computer to restrict unauthorized access.

### **3.12 Ethical issues**

Ethical approval for this study was obtained from the Oyo State Ethical Review Committee (Appendix V). Written consent was gotten from the respondents, teachers, and principals (Appendix I). The respondents were informed of their voluntariness to participate also; Students were assured of confidentiality as no form of identifiers was included in the questionnaire. Data collected was used for the purpose of this research and were kept confidential on a password protected computer to avoid unauthorized access; questionnaires serially numbered and stored in a safe place to avoid theft or misplacement. This study has increased the respondent's critical consciousness to psychological stress because of the process of answering the questions.

### **3.13 Study limitation**

The study was carried out among only in-school adolescents hence, there is need to exercise caution when generalizing the findings gotten from this study to all adolescents. The questions in the Brief Cope Questionnaire were a bit lengthy for the students, though this was done to capture the variables needed in the study. This was managed by structuring the questions in simple and exciting manner for the students to reduce the non-response rate. However, it can be reduced or replaced with a shorter standardized scale in further studies. Also, this research was only based on adolescent's report on psychological stress and not their teachers and parents reports on level of psychological stress among the respondents. Hence, the current result might be influenced by memory biases which should have been solved if the same report was gotten from their teachers and parents. Finally, the study was only carried out in secondary schools in a local government, a wider community study and a larger sample size will be a better representative of the population.

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## CHAPTER FOUR

### RESULTS

#### 4.1 Respondent's Socio-demographic characteristics

The ages of the respondents ranged from 10-18 years with a mean of  $14.1 \pm 1.6$ . More than half of the respondents (86.9%) were within the age of 12-16 years. About half of the respondents were females (52.5%) and majority (86.0%) were Yoruba. One-third of the respondents were in the senior class and from private schools. Most of the respondents were (66.3%) Christians and Majority (81.3%) were from a monogamous family. Majority of the respondents had their Fathers and Mothers highest level of education as Tertiary while majority had their father's and Mother's occupation to be professionals and Self-employed.

Majority of the respondents (62.5%) stated that they are from average homes and they are the first born (37.8%) of their families. Most of the respondents reported that they are very close to their Fathers (48.8%), Mothers (78.5%), and siblings (67.0%) and close to their teachers (55.8%) and classmates (49.8%). Majority of the respondents (90.8%) stated that their Parents are married and have more than two siblings (53.0%)

**Table 4.1a: Socio-demographic characteristics of the respondents (N=400)**

<b>Socio-demographic Variables</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
<b>Age</b>		
10-12	60	15.0
13-15	270	67.5
16-18	70	17.5
<b>Gender</b>		
Male	190	47.5
Female	210	52.5
<b>Ethnicity</b>		
Yoruba	344	86.0
Igbo	35	8.8
Hausa	11	2.8
Others	10	2.5
<b>Educational level</b>		
JSS1	18	4.5
JSS2	29	7.3
JSS3	84	21.0
SS1	106	26.5
SS2	135	33.8
SS3	28	7.0
<b>School type</b>		
Public	162	40.5
Private	238	59.5
<b>Religion</b>		
Islam	128	32.0
Christianity	264	66.6
Traditional	3	0.8
<b>Fathers Highest Level of Education</b>		
No formal education	3	0.8
Primary	7	18.0
Secondary	70	17.5
Vocational	18	4.5
Tertiary	302	75.3
<b>Mothers Highest Level of Education</b>		
No formal education	8	2.0
Primary	13	3.3
Secondary	76	19.0
Vocational	24	6.0

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**Table 4.1b: Socio-demographic characteristics of the respondents (N=400)**

<b>Socio-demographic Variables</b>	<b>Frequency (N)</b>	<b>(%)</b>
<b>Father's occupation</b>		
Artisan	26	6.5
Professional	203	50.8
Self employed	170	42.5
Unemployed	1	0.3
<b>Mother's occupation</b>		
Artisan	11	2.8
Professionals	170	42.5
Self employed	214	53.5
Unemployed	5	1.3
<b>Family type</b>		
Monogamy	325	81.3
Polygamy	75	18.8
<b>Relationship with Father</b>		
Very close	195	48.8
Close	151	37.8
Not close	54	13.5
<b>Relationship with Mother</b>		
Very close	314	78.5
Close	70	17.5
Not close	16	4.0
<b>Relationship with Siblings</b>		
Very close	268	67.0
Close	114	28.5
Not close	18	4.6
<b>Number of siblings</b>		
0-1	189	15.8
2	126	31.5
3 and above	211	53.0
<b>Social class</b>		
Poor	15	3.8
Average	250	62.5
Rich	135	33.8
<b>Position in the family</b>		
First	151	37.8
Last born	123	30.8
Only child	23	5.8
Others	103	25.8

**Table 4.1c: Socio-demographic characteristics of the respondents (N=400)**

<b>Socio-demographic Variables</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
<b>Parent's marital status</b>		
Married	363	90.8
Divorced	25	6.3
Widowed	9	2.3
Both parents are dead	3	0.8
<b>Relationship with Teachers</b>		
Remarkably close	110	27.5
Close	223	55.8
Not close	67	16.8
<b>Relationship with Classmates</b>		
Remarkably close	182	45.5
Close	199	49.8
Not close	19	4.8



#### **4.2 Respondent's Awareness of psychological stress**

The awareness level of psychological stress among the respondents was observed to be extremely low. More than half of the respondents (56.3%) have not heard about psychological stress before while others (43.7%) have heard about it from one place or the other. More than half of those who have heard about psychological stress got to know through the media sources (61.7%) while others received the information from Religious centres (31.4%) and Interpersonal sources (6.9%). The responses are presented in Table 4.2 below.

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**Table 4.2: Awareness of psychological stress (N=400)**

<b>Awareness Variables</b>	<b>Frequency (N)</b>	<b>Percentage (%)</b>
<b>Awareness about Psychological stress</b>		
Yes	175	43.8
No	225	56.3
<b>Sources of Information (N=175)</b>		
Media	108	61.7
Religious	50	28.6
Interpersonal	12	6.86
Others	5	2.86

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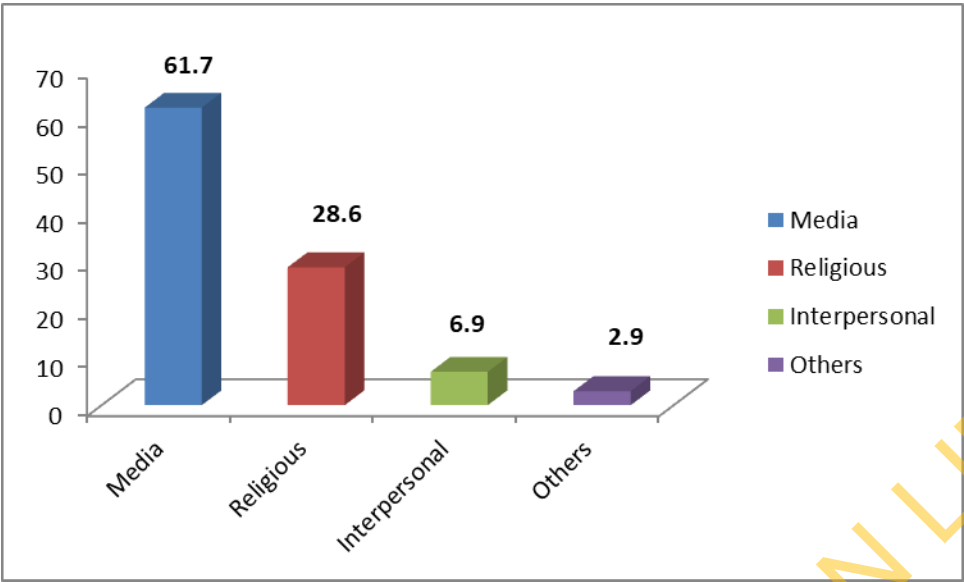


Figure 4.2: Sources of information of Psychological stress

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### 4.3 Respondent's Knowledge of psychological stress

The level of knowledge was observed to be extremely low since majority of the respondents had poor knowledge (76.4%) with a few numbers having a good knowledge (5.3%) of psychological stress. About (4.3%) of the respondents were able to define psychological stress as being the emotional response of the body to chronic stressful event while (8.3%) defined it as having difficulty coping with a situation. About 3.8% stated that too much work in school was what triggers psychological stress while (3%) chose being bullied in school and (1.3%) picked lack of understanding. The recognized signs of psychological stress were stated to be Poor performance in school (5%), always alone (12.5%) and inadequate sleep (1.3%). The symptoms of psychological stress as stated by the respondents are lack of energy (25.0%) and inadequate sleep (14.0%) while the most common sign of an individual that is psychologically distressed was stated to be sadness (32.3%). The various consequences of psychological stress were highlighted to be Suicide (12.5%), Eating disorders (5.3%) and Hypertension (7.5%). The respondents also stated that psychological stress can be managed by seeking help (6.8%), solving the problem (3.8%) and avoiding the problem (3.8%) and about 1.3% was able to identify the classified symptoms of psychological stress.

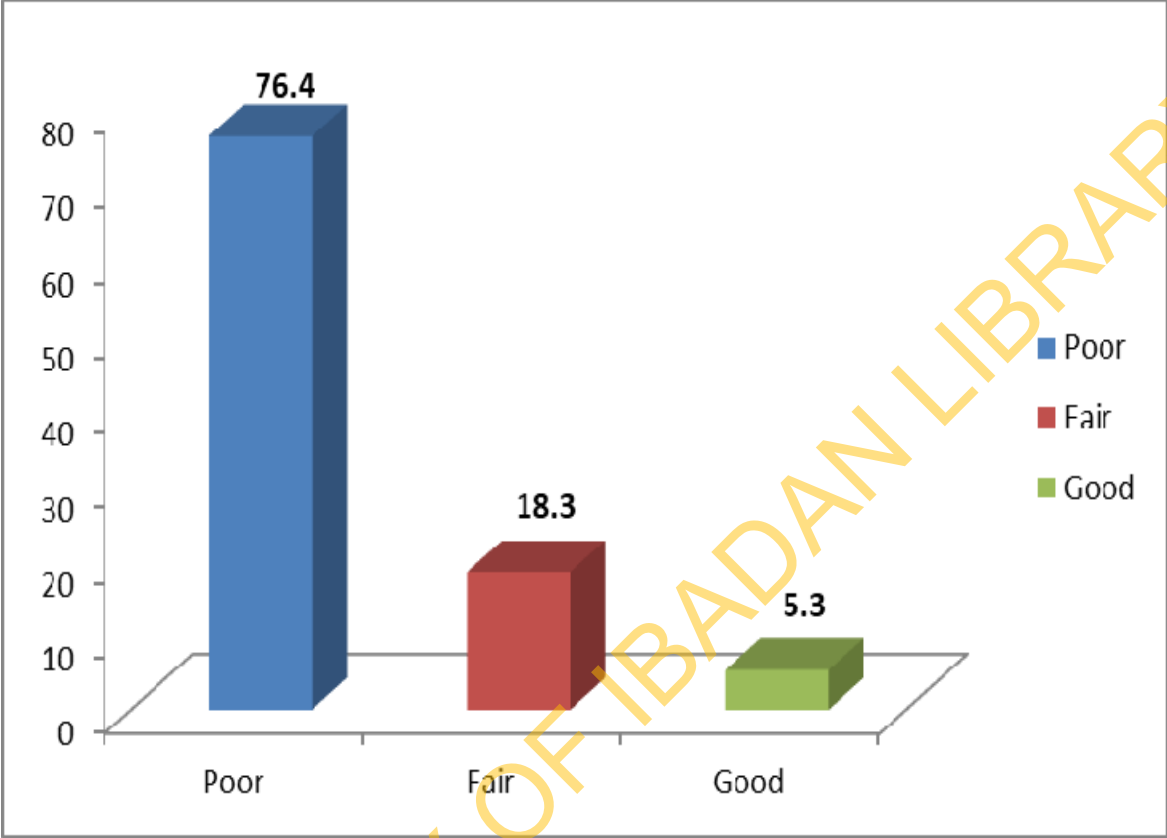
The knowledge of how psychological stress can be managed was poor among the respondents. Only 14.3% correctly understood how psychological stress can be managed. Other responses are presented in Table 4.3. The overall knowledge score obtained from the respondents was  $7.7 \pm 2.7$ .

**Table 4.3a: Knowledge of psychological stress (N=400)**

<b>Knowledge Variables</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Definition of psychological stress</b>		
The emotional response of the body to chronic stressful event	17	4.25
This occurs when you have difficulty coping with a situation	33	8.25
<b>Factors that triggers the development of psychological stress</b>		
Too much work in school	15	3.75
Being bullied in school	12	3.00
Lack of understanding by Parent	5	1.25
<b>Recognized signs of psychological stress</b>		
Poor performance in School	20	5.0
Love to be alone	50	12.5
Inadequate sleep	9	2.25
<b>Symptoms of psychological stress</b>		
Lack of energy	100	25.0
Inadequate sleep	56	14.0
<b>Consequences associated with psychological stress</b>		
Suicide	50	12.5
Eating disorders	21	5.25
Hypertension	30	7.50
<b>The most common sign of psychological stress</b>		
Sadness	129	32.25

**Table 4.3b: Knowledge of psychological stress (N=400)**

<b>Knowledge Variables</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>How psychological stress can be managed</b>		
Seek medical help	27	6.75
Solve the problem	15	3.75
Avoidance	15	3.75
<b>Classified warning symptoms of psychological stress</b>		
Cognitive	5	1.25
Physical	5	1.25
Behavioural	5	1.25
Emotional	30	7.50
<b>Level of knowledge</b>		
Poor knowledge	306	76.4
Fair knowledge	73	18.3
Good knowledge	21	5.3
<b>Average knowledge score</b>		<b>7.7 ±2.7</b>



**Figure 4.3: Bar chart showing the overall knowledge score among the respondents**

**Poor knowledge: (0-6)**

**Fair knowledge: (7-11)**

**Good knowledge: (12-16)**

#### **4.4 Prevalence of psychological stress among respondents**

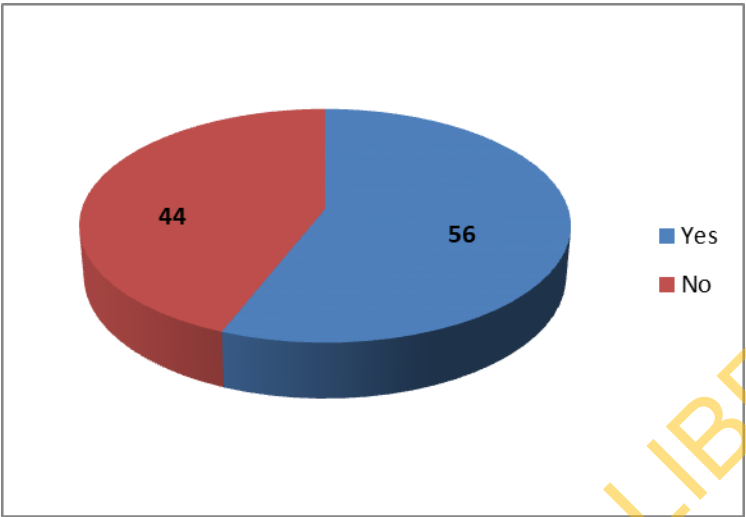
The prevalence of psychological stress was determined to be 56 % among the respondents in the last 30 days using the general health questionnaire (GHQ-12). The scale of <15 was used as not being psychologically stressed and >15 as being psychologically stressed.

They stated that in the last one month, they do not concentrate while studying (49.5%), can't sleep because they are worried (23%), not being able to make decisions effectively (39%), feeling unhappy (37.6%), feeling depressed (29.5%), have no confidence in themselves (27.6%), faced with so much pressure (31.1%), do not enjoy normal activities (33.3%), being unable to face problems (35%), feel worthless about themselves (24.5%), not being able to overcome difficulties (28.8%) and feeling hopeless about their life (28.5%).



**Table 4.4 Prevalence of psychological stress among the respondents (N=400)**

<b>Variables</b>	<b>n (%)</b>		
	<b>Never (%)</b>	<b>Sometimes(%)</b>	<b>Always(%)</b>
I do not concentrate while studying	202(50.5)	184(46.0)	14 (3.5)
I do not sleep because am worried	308(77.0)	82 (20.5)	10 (2.5)
I am not able to make decisions effectively	244(61.0)	138(34.5)	18 (4.5)
I feel unhappy	250(62.5)	137(34.3)	13 (3.3)
I feel depressed	282(70.5)	100(25.0)	18(4.5)
I have lost confidence in myself	290(72.5)	97(24.3)	13(3.3)
I am constantly under pressure	276(69.0)	101(25.3)	23(5.8)
I do not enjoy normal activities	267(66.8)	111(27.8)	22(5.5)
I am unable to face problems	260(65.0)	114(28.5)	26(6.5)
I often feel worthless	302(75.5)	83(20.8)	15(3.7)
I am unable to overcome difficulties	285(71.3)	98(24.5)	17(4.3)
I feel hopeless about life	286(71.5)	82(20.5)	32(8.0)



**Figure 4.4: Prevalence of Psychological stress**

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#### **4.5 Associated factors of psychological stress among respondents**

The various associated factors of psychological stress were categorized in four types: Personal, Family, School, Peer pressure and Romantic relationships factors. Some of the personal factors resulting in psychological stress as stated by the respondents were: Not liking their physical appearance (14.7%), that of the family factors were identified to be: not being understood by their parents (30%) and those factors from school were identified to according to the students are: finding it difficult to keep up with schoolwork (17.3%), finding it difficult to wake up early to go to school (24.8%). Peer pressure was also identified as a source of psychological distress among the respondents as it was stated in their responses. The details of the results are well presented in table 4.3.

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**Table 4.5: Associated factors of psychological stress among the respondents (N=400)**

<b>Variables</b>	<b>Frequency (n)</b>	<b>Percentage (%)</b>
<b>Personal factors</b>	<b>Yes</b>	<b>Yes</b>
I do not like my physical appearance	59	14.7
I feel inferior to others	88	22.0
\Competition motivates me	242	39.5
I love to take my time while working	260	65.0
I see things from a negative point of view	155	38.8
I am very loyal to my friends and family	267	66.8
<b>Family factors</b>		
My parents do not understand me	120	30.0
I have too many responsibilities at home	99	24.8
My parents do not support me	68	17.0
My parents are expecting too much from me	103	25.8
My parents have disagreements all the time	66	16.5
<b>School factors</b>		
I find it difficult to keep up with schoolwork	69	17.3
I find it difficult to wake up early to go to School	103	25.8
My teacher expects too much from me	146	36.5
I have difficulty with some subjects	194	48.5
I have difficulty with abiding by the rules in School	88	22.0
I am not getting along with my teachers	77	19.2
<b>Peer pressure</b>		
I am being bullied by my classmates	84	21.0
I have pressure fitting in with peers	81	20.2
I always have disagreements with my peers	77	19.2
<b>Romantic relationships</b>		
I am being ignored by the one I like	95	23.7
I am not getting along with my boy/girl friend	67	16.7
My boy/girl friend is cheating on me	54	13.5
I have been jilted by my boy/girlfriend	58	14.5

#### 4.6 Coping mechanisms of psychological stress among respondents

The classified coping mechanism of psychological stress can be categorized into problem solving mechanism which is also known as approach mechanisms and Emotion-focused mechanisms, also known as avoidance coping strategies. The various coping strategies employed among those who have been identified to be psychologically stressed are: Instrumental support (38.8%), Humour (17.4%), Substance use (15.6%), Emotional support (3.1%), Behavioural disengagement e.g. yelling (17.4%), Active coping (13.4%), Positive reinterpretation (36.6%), Emotional support (31.3%), positive reinterpretation (44.2%), self-blame (29.9%), planning (17.0%), denial of the problem (24.1%), acceptance (26.8%), venting of emotions e.g. yelling (20.1%), Religion (12.9%) and self-distractions e.g. Going to the movies (49.1%), Watching TV (24.1%), Reading(6.3%), Imagining (20.5%). About 63.4% of the respondents have been observed to use the emotion-focused as their coping strategy while 36.6% use problem-focused as their coping strategy against psychological stress. Other responses are presented in Table 4.6.

**Table 4.6a: Coping mechanisms of psychological stress among the respondents (N=224)**

Variables	N (%)			
	Not at all	A little bit	Sometimes	A lot
Instrumental support(approach)	34(15.2)	63(28.1)	40(17.9)	87(38.8)
Humour(avoidance)	81(36.2)	87(38.8)	17(7.6)	39(17.4)
Substance abuse (avoidance)	99(44.2)	65(29.0)	25(11.2)	35(15.6)
Emotional support(approach)	193(86.2)	20(8.9)	4(1.8)	7(3.1)
Behavioural disengagement(avoidance)	69(30.8)	87(38.8)	29(12.9)	39(17.4)
Active coping(approach)	105(46.9)	54(24.1)	35(15.6)	30(13.4)
Positive reinterpretation(approach)	43(19.2)	60(26.8)	39(17.4)	82(36.6)
Emotional support(approach)	56(25.0)	53(23.7)	45(21.0)	70(31.3)
Positive reinterpretation(approach)	46(20.5)	44(19.6)	35(15.6)	99(44.2)
Self-blame(avoidance)	57(25.4)	67(29.9)	33(14.7)	67(29.9)
Planning(approach)	99(44.2)	62(27.7)	25(11.2)	38(17.0)
Denial (avoidance)	62(27.7)	69(30.8)	39(17.4)	54(24.1)
Humour(avoidance)	87(38.8)	77(34.4)	23(10.3)	37(16.5)
Acceptance(approach)	1;2(5.4)	56(25.0)	96(42.9)	60(26.8)
Venting of emotions(avoidance)	85(37.9)	63(28.1)	31(13.8)	45(20.1)

**Table 4.6b: Coping mechanisms of psychological stress among the respondents (N=224)**

Variables	Not at all	A little bit	Sometimes	A lot
Religion(approach)	108(48.2)	60(28.1)	27(12.7)	29(12.9)
Acceptance(approach)	105(46.9)	47(21.0)	18(8.0)	54(24.1)
Self-blame(avoidance)	89(39.7)	64(28.6)	24(10.7)	47(21.0)
Religion(approach)	90(40.2)	65(29.0)	25(11.2)	44(19.6)
Self-distraction(avoidance)				
i) Going to the movies	0(0)	0(0)	0(0)	110(49.1)
ii) Watching TV	0(0)	0(0)	0(0)	54(24.1)
iii) Reading	0(0)	0(0)	0(0)	14(6.3)
iv) Imagining	0(0)	0(0)	0(0)	46(20.5)

## 4.7 Test of hypotheses

### 4.7.1. Hypothesis 1

Chi-square/Fischer analysis revealed that there is no significant association between Socio-demographic variables (educational level, school type, age, social class) and level of knowledge of Psychological stress except gender which had a significant association with a P-value: 0.043. Table 4.6 shows the presentation of the results gotten from the analysis.

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**Table 4.7: Association between Socio-demographic Variables and level of knowledge of Psychological stress**

Socio-demographic Variables	Knowledge of psychological stress			X <sup>2</sup>	df	p-value	Null hypothesis
	Poor	Fair	Good				
<b>Gender</b>							
Male	145(36.25%)	40(10%)	5(1.25%)	6.285	2	0.043	<b>Rejected</b>
Female	161(40.25%)	33(8.25%)	16(4%)				
<b>Educational level</b>							
Junior	103(25.75%)	25(6.25%)	3(0.75%)	3.458	2	0.186*	<b>Accepted</b>
Senior	203(50.75%)	48(12%)	18(4.5%)				
<b>School type</b>							
Private	178(44.5%)	44(11%)	16(4%)	2.690	2	0.263	<b>Accepted</b>
Public	128(32%)	29(7.25%)	5(1.25%)				
<b>Age</b>							
10-12	46(11.5%)	12(3%)	2(0.5%)	1.077	4	0.905*	<b>Accepted</b>
13-15	207(51.75%)	49(12.25%)	14(3.5%)				
16-18	53(13.25%)	12(3%)	5(1.25%)				
<b>Social class</b>							
Poor	11(2.75%)	4(1%)	0	6.027	4	0.168*	<b>Accepted</b>
Average	183(45.75%)	50(12.5%)	17(4.25%)				
Rich	112(2.8%)	19(4.75%)	4(1%)				
<b>Relationship with Teachers</b>							
Very close	84(21%)	22(5.5%)	4(1%)	2.524	4	0.646*	<b>Accepted</b>
Close	174(43.5%)	36(9%)	13(3.25%)				
Not close	48(12%)	15(3.75%)	4(1%)				

**Values with \* were analysed using Fischer exact test**

#### 4.7.2. Hypothesis 2

Chi-square/Fischer exact analysis revealed that there is no significant association between Socio-demographic variables and prevalence of Psychological stress with a P-value  $<0.05$  except age of the respondents with a p-value: 0.030 and relationship with siblings: 0.047. This implies that as the age of the adolescents increases, the greater the tendency to be psychologically stressed. Also, an adolescent who tends to be close with their siblings might have a lower tendency to be psychologically stressed. Table 4.7 shows the presentation of the results gotten from the analysis.

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**Table 4.8a: Association between Socio-demographic Variables and Prevalence of Psychological stress**

Variables	Prevalence of psychological stress		X <sup>2</sup>	Df	P-value	Null hypothesis
	Yes	No				
<b>Age</b>						
10-12	25(6.25%)	35(8.75%)	7.037	2	0.030	<b>Rejected</b>
13-15	162(40.5%)	108(27%)				
16-18	37(9.25%)	33(8.25%)				
<b>Parent's Marital Status</b>						
Married	201(50.25%)	162(40.5%)	2.2.37	3	0.551*	<b>Accepted</b>
Divorced	17(4.25%)	8(2%)				
Widowed	5(1.25%)	4(1%)				
Both parents are dead	1(0.25%)	2(0.5%)				
<b>Relationship with teachers</b>						
Very close	62(15.5%)	48(12%)	4.528	2	0.105	<b>Accepted</b>
Close	117(29.25%)	106(26.5%)				
Not close	45(11.25%)	22(5.5%)				
<b>Relationship with classmates</b>						
Very close	101(25.25%)	81(20.25%)	4.329	2	0.117*	<b>Accepted</b>
Close	108(27%)	91(22.75%)				
Not close	15(3.75%)	4(1%)				
<b>Relationship with Mum</b>						
Very close	171(42.75%)	143(35.75%)	4.483	2	0.102*	<b>Accepted</b>
Close	40(10%)	30(7.5%)				
Not close	13(3.25%)	3(0.75%)				
<b>Social class</b>						
Poor	10(2.5%)	5(1.25%)	1.853	2	0.402	<b>Accepted</b>
Average	144(36%)	106(26.5%)				
Rich	70(17.5%)	65(16.25%)				

**Table 4.7b: Association between Socio-demographic Variables and Prevalence of Psychological stress**

Variables	Prevalence of psychological stress		X <sup>2</sup>	Df	P-value	Null hypothesis
	Yes	No				
<b>Relationship with Dad</b>						
Very close	87(21.75%)	64(16%)	0.754	2	0.686	<b>Accepted</b>
Close	32(8%)	22(5.5%)				
Not close						
<b>Relationship with Siblings</b>						
Very close	142(35.5%)	47(11.5%)	6.910	2	0.047*	<b>Rejected</b>
Close	67(16.75%)	126(31.5%)				
Not close	15(3.75%)	3(0.75%)				
<b>Gender</b>						
Female	103(25.75%)	87(21.75%)	0.470	1	0.470	<b>Accepted</b>
Male	121(30.25%)	89(22.25%)				
<b>Type of Family</b>						
Monogamy	177(44.25%)	148(37%)	1.665	1	0.197	<b>Accepted</b>
Polygyny	47(11.75%)	28(7%)				

Values with \* were analysed using Fischer exact test

### 4.7.3. Hypothesis 3

Chi-square/Fischer analysis revealed that there is no significant association between associated factors and coping mechanisms of Psychological stress with a P-value  $<0.05$ . Further analysis revealed that the factor that states that "I love to take my time while working" was significantly associated with the coping mechanism "planning" with a p-value of 0.044, this implies that adolescents that loves to take their time while working will tend to go for the approach (positive coping) mechanism thereby reducing the rate of psychological stress among such adolescents Table 4.8 shows the presentation of the results gotten from the analysis. However, the factor that states that "I see things from a negative view" was observed to be significantly associated with the coping mechanism 'venting of emotions" (0.038) and "self -blame" (0.035). This implies that the respondents who tend to see things from a negative view will tend to employ the negative coping mechanism which results in the increase of psychological stress and suicidal behaviours. Table 4.9 shows the details of the results gotten from the analysis.

**Table 4.9: Association between associated factors and Coping mechanisms of Psychological stress**

Associated factors	Coping mechanisms of Psychological stress		X <sup>2</sup>	Df	P-value	Null hypothesis
	No	Yes				
<b>Competition motivates me</b>	<b>Self distraction</b>					
Yes	52(13%)	75(18.75%)	7.632	3	0.054	<b>Accepted</b>
No	41(10.25%)	56(14%)				
<b>Competition motivates me</b>	<b>Substance use</b>					
Yes	21(5.25%)	39(9.75%)	7.634	3	0.054	<b>Accepted</b>
No	72(18%)	92(23%)				
<b>I love to take my time while working</b>	<b>Planning</b>					
Yes	16(4%)	49(12.25%)	8.075	3	0.044	<b>Rejected</b>
No	58(14.5%)	101(25.25%)				
<b>I am loyal to friends and family</b>	<b>Planning</b>					
Yes	29(7.25%)	36(9%)	15.236	3	0.002	<b>Rejected</b>
No	52(13%)	107(26.75%)				
<b>Competition motivates me</b>	<b>Emotional support</b>					
Yes	40(10%)	75(18.75%)	8.234	3	0.041	<b>Rejected</b>
No	53(13.25%)	56(14%)				
<b>I see things from a negative view</b>	<b>Venting of emotions</b>					
Yes	43(10.75%)	33(8.25%)	8.455	3	0.038	<b>Rejected</b>
No	76(19%)	72(18%)				
<b>I see things from a negative view</b>	<b>Acceptance</b>					
Yes	32(8%)	40(10%)	17.014	3	0.001	<b>Rejected</b>
No	87(21.75%)	65(16.25%)				
<b>I see things from a negative view</b>	<b>Self-blame</b>					
Yes	14(3.5%)	57(14.25%)	8.585	3	0.035	<b>Rejected</b>
No	60(15%)	93(23.25%)				

#### 4.7.4. Hypothesis 4

Chi-square/Fischer analysis revealed that there is a significant association between associated factors and prevalence of Psychological stress with a P-value <0.05. Table 4.10 shows the presentation of the results gotten from the analysis.

**Table 4.10a: Association between associated factors and prevalence of Psychological stress**

Associated factors	Prevalence of Psychological stress		X <sup>2</sup>	df	p-value	Null hypothesis
	Yes	No				
<b>Personal factors</b>						
<b>I do not like my physical appearance</b>						
Yes	16(4%)	160(40%)	8.004	1	0.005	<b>Rejected</b>
No	43(10.75%)	181(45.25%)				
<b>I feel inferior to others</b>						
Yes	27(6.75%)	149(37.25%)	8.122	1	0.004	<b>Rejected</b>
No	61(15.25%)	163(40.75%)				
<b>Competition motivates me</b>						
Yes	111(27.75%)	56(14%)	0.867	1	0.356	<b>Rejected</b>
No	131(32.75%)	93(23.25%)				
<b>I see things from a negative view</b>						
Yes	50(1.25%)	26(6.5%)	15.236	1	0.000	<b>Rejected</b>
No	105(26.25%)	119(29.75%)				
<b>Family factors</b>						
<b>My parents do not understand me</b>						
Yes	35(8.75%)	126(31.5%)	15.308	1	0.000	<b>Rejected</b>
No	85(21.25%)	139(34.75%)				
<b>I have too many responsibilities at home</b>						
Yes	33(8.25%)	143(35.75%)	6.075	1	0.014	<b>Rejected</b>
No	66(16.5%)	158(39.5%)				

**My parents are expecting too much from me**

Yes	36(9%)	140(35%)	4.610	1	0.032	<b>Rejected</b>
No	67(16.75%)	157(39.25%)				

**My Parents have disagreements all the time**

Yes	16(4%)	160(40%)	12.522	1	0.000	<b>Rejected</b>
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**Personal factors**

**I do not like my physical appearance**

Yes	16(4%)	160(40%)	8.004	1	0.005	<b>Rejected</b>
No	43(10.75%)	181(45.25%)				

**I feel inferior to others**

Yes	27(6.75%)	149(37.25%)	8.122	1	0.004	<b>Rejected</b>
No	61(15.25%)	163(40.75%)				

**Competition motivates me**

Yes	111(27.75%)	56(14%)	0.867	1	0.356	<b>Rejected</b>
No	131(32.75%)	93(23.25%)				

**I see things from a negative view**

Yes	50(1.25%)	26(6.5%)	15.236	1	0.000	<b>Rejected</b>
No	105(26.25%)	119(29.75%)				



**Table 4.10b: Association between associated factors and prevalence of Psychological stress**

Associated factors	Prevalence of Psychological stress		X <sup>2</sup>	df	p-value	Null hypothesis
<b>Family factors</b>						
<b>My parents do not understand me</b>						
Yes	35(8.75%)	126(31.5%)	15.308	1	0.000	<b>Rejected</b>
No	85(21.25%)	139(34.75%)				
<b>I have too many responsibilities at home</b>						
Yes	33(8.25%)	143(35.75%)	6.075	1	0.014	<b>Rejected</b>
No	66(16.5%)	158(39.5%)				
<b>My parents are expecting too much from me</b>						
Yes	36(9%)	140(35%)	4.610	1	0.032	<b>Rejected</b>
No	67(16.75%)	157(39.25%)				
<b>My Parents have disagreements all the time</b>						
Yes	16(4%)	160(40%)	12.522	1	0.000	<b>Rejected</b>
No	56(14%)	174(43.5%)				

**Table 4.10c: Association between associated factors and prevalence of Psychological stress**

<b>Associated factors</b>	<b>Prevalence of Psychological stress</b>		<b>X<sup>2</sup></b>	<b>df</b>	<b>p-value</b>	<b>Null hypothesis</b>
<b>Romantic relationship factors</b>						
<b>I am being ignored/rejected by the person i like</b>						
Yes	28(7%)	148(37%)	10.670	1	0.001	<b>Rejected</b>
No	67(16.75%)	157(39.25%)				
<b>I am not getting along with my boyfriend</b>						
Yes	20(5%)	156(39%)	6.539	1	0.011	<b>Rejected</b>
No	47(11.75%)	177(44.25%)				
<b>My boy/girlfriend broke up with me</b>						
Yes	13(3.25%)	163(40.75%)	10.059	1	0.002	<b>Rejected</b>
No	41(10.25%)	183(45.75%)				

#### 4.7.5. Regression analysis between associated factors and prevalence of psychological stress

Table 5.0 shows that there is a significant association between prevalence of psychological stress and associated factors. From the results, Adolescents who see things from a negative view are 1.931 times more likely to have psychological stress than those who do not see things from a negative view (OR: 1.931; CI:1.244-2.998). Adolescents who have too many responsibilities at home are 0.488 times more likely to be prone to psychological stress than those who do not have too many responsibilities at home (OR: 0.488; CI: 0.301-0.790).

Adolescents whose parents expect too much from them are 0.516 times more likely to have psychological stress than those whose parents do not expect too much from them (OR: 0.516; CI: 0.275-0.968). Adolescents that stated that their teachers in school expect too much from them are 0.486 times more likely to be prone to psychological stress than those that their teachers do not expect so much from them (OR: 0.486; CI: 0.292-0.811).

Adolescents who have pressure fitting in with their peers are 0.571 times more likely to have psychological stress than those who do not have pressure fitting in with their peers (OR: 0.571; CI: 0.333-0.981). Adolescents who are being ignored by someone they do not like are 0.558 times more likely to have psychological stress than those who are not being ignored by someone they like (OR: 0.558; CI: 0.315-0.988). Lastly, Adolescents who are not getting along with their boy/girl friends are 0.569 times more likely to have psychological stress than those that are not getting along with their boy/girlfriends (OR: 0.569; CI: 0.335-0.967).

Therefore, seeing things from a negative view, having too many responsibilities, getting a lot of expectations from parents, getting too many expectations from teachers, having pressure to fit in with peers, being ignored by the one i like and not getting along with my boy/girlfriend are the core factors influencing the prevalence of psychological stress.

**Table 4.10: Regression analysis of the association between associated factors and prevalence of psychological stress**

<b>Associated factors</b>	<b>Df</b>	<b>OR</b>	<b>CI</b>	<b>P-value</b>	<b>Null hypothesis</b>
<b>Personal factors</b>	1	1.931	1.244-2.998	<b>0.003</b>	Rejected
Seeing things from a negative view					
<b>Family factors</b>		0.488	0.301-0.790	<b>0.004</b>	Rejected
Having too many responsibilities at home	1				
Parents are expecting too much from me	1	0.516	0.275-0.968	<b>0.039</b>	Rejected
<b>School factors</b>			0.292-0.811	<b>0.006</b>	Rejected
Teachers expects too much from me	1	0.486			
<b>Peer pressure</b>	1	0.571	0.333-0.981	<b>0.043</b>	Rejected
Pressure fitting in with peers					
<b>Romantic Relationships</b>					
Being ignored by the one I like	1	0.558	0.315-0.988	<b>0.045</b>	Rejected
Not getting along with my boy/girl friend	1	0.569	0.335-0.967	<b>0.037</b>	Rejected

## CHAPTER FIVE

### DISCUSSION, CONCLUSION, RECOMMENDATIONS

#### 5.0 Discussion

This cross-sectional descriptive study was conducted to determine the prevalence, associated factors, and coping mechanisms of psychological stress among adolescents in Ibadan North Local government, Ibadan, Oyo State, Nigeria. This chapter discusses the findings of the study with the following sub-sections: Socio-demographic information; knowledge associated factors, prevalence, and coping mechanisms of psychological stress. Other sub-sections are the implications of the findings for health education and social policy, conclusion, and recommendations.

#### 5.1 Respondent's socio-demographic characteristics

Four hundred (400) adolescents of both female and male in schools located in Ibadan North Local Government area participated in this study and the outcome of the study shows that respondents within the age 10-19 years were psychologically stressed. Majority of the respondents were Christians which is the predominant religion in the area while majority were Yoruba's since the study was conducted in South-western part of Nigeria. Most of the students were from the senior class. This is like what was reported by Famakinwa, Olagunju and Akinnawonu, (2016) in a study carried out in Ore Odigbo Local government, Ondo State.

There were more females in this study contrary to what was reported according to Famakinwa et al, (2016). Majority of the students were the first born and from an average home, findings were like the study on adolescent learners in India (Manikanda and Nirmala, 2015). More than half of the respondents stated that their parent's highest form of education was tertiary. Contrary findings were gotten from the study conducted at Ido-Ekiti (Oderinde et al, 2018). The differences might be due to the rate of industrialization in Ibadan-North compared to that of Ido-Ekiti.

Majority of the respondents stated that their parents are married and from a monogamous family and they have a close relationship with their parents, siblings and teachers which is like the study conducted in Ido-Ekiti by Oderinde et al, (2018). This shows that there are other factors that

might be contributing to the prevalence of psychological stress among the respondents since majority reported that they have a cordial relationship with their parents, siblings, teachers, and classmates.

About half of the respondents were from private owned schools and a few from government owned schools which are contrary to the study by Oderinde et al, (2018). This might be because of the existence of more private owned schools in the local government than Ido-Ekiti.

### **5.1.2 Knowledge of psychological stress**

Psychological stress can be characterized by the absence of emotional and social wellbeing. This is defined as a change in the mood/behaviour of a person (Abiola, Lawal and Garba, 2015). Experiencing stress consistently results in psychological stress which affects an individual's health/wellbeing; it inhibits and suppresses the learning ability of an individual by negatively affecting the cognitive and functioning ability of an individual.

This results in low grades in school, poor work performance, depression, eating disorders, elimination disorders, suicidal behaviours; poor concentration and substance use (Mapfumo, 2012). Psychological stress is one of the serious issues that affect a student's life; its effects could be reflected in student's social, academic, and mental health.

The awareness level (43.8%) of psychological stress was low as many of the respondents. They were more familiar with depression which is the aftermath of psychological stress. This might be the cause for the increase in the suicide rates among this study group since they know little about the stages of development of depression.

The knowledge of psychological stress was also extremely low with the mean knowledge score of  $7.7 \pm 2.7$  with majority of the respondents having no knowledge of the psychological stress most especially knowledge on the classified symptoms and coping mechanisms of psychological stress. The knowledge of how psychological stress can be managed was poor among the respondents. Only 14.3% correctly understood how psychological stress can be managed. This

strongly explains the reason why stressful situations among these respondents are always poorly managed.

The most common source of information among the respondents is the media which shows that the media can be used positively to increase the knowledge of adolescents on psychological stress since they are more accessible through the media.

The respondents defined psychological stress as the emotional response of the body to chronic stressful event and the period when you have difficulty coping with a difficult situation which is consistent with the findings gotten by (Simuforosa, 2013). The respondents stated that the various signs of psychological stress are poor performance in school, inadequate sleep, and love to be alone. Also, they mentioned that suicide, hypertension and eating disorders are the consequences of psychological stress which are all consistent with the previous findings on psychological stress (Chandra and Batada, 2006).

A few were able to identify the classified signs and symptoms of psychological stress, which are: Cognitive, Emotional, Physical and Behavioural symptoms (Jeanne, Melinda, Robert and Lawrence, 2017). Also, a few were able to identify solving the problem, avoidance and seek medical help as the various by which psychological stress can be managed. This is like the findings reported by (Clarke, 2006). There is therefore a need for continuous enlightenment on psychological stress by focusing on its signs, symptoms, and its coping mechanisms.

### **5.1.3 Prevalence of psychological stress**

The prevalence of psychological stress was determined to be 56%. The respondents stated that during the last 30 days, they (5.5%) did not enjoy normal activities, 6.5% were unable to face problems adequately, 4.5% were depressed and 8.0% feel hopeless about life. This is higher to a similar study that was conducted in Benin-City in which the prevalence rate of (30.9%) psychological distress was observed among school-going adolescents (Akanni and Otakpor, 2017). This might be because of the instruments used in the data collection with respect to its validity and reliability. Also, this might have occurred because of the difference in the study location. The study that was conducted in India among 3141 adolescents in private and public

secondary school students within the age range of 15-19 years in which a one-month prevalence rate (57.7%) of depressive symptoms was observed has similar findings related to this study (Nagendra et al., 2012).

The study that was conducted in Ido Ekiti among 540 secondary school students reported a prevalence of 16.3% depressive symptoms (Oderinde et al, 2018). The difference in the results gotten from this study might be because of the difference study population since the rate of industrialization in Ibadan cannot be compared with that of the students in Ido-Ekiti and this might have a link to the kind of stress encountered in developed places.

Also, a study was done by Omigbodun et al; among 484 adolescents in two rural districts of south-western Nigeria reported a prevalence rate of probable depression to be 12.1%.

The difference in this result might be because of variation in the methodology. The study conducted in a rural district of Egbeda Local government area of Oyo State reported the prevalence of 21.2% which is lower to findings gotten from this study. This might be because of different instruments used in the data collection. The study conducted among medical students in Malaysia with a prevalence of 41.9% has similar findings with this study because same instrument (GHQ-12) was used for the screening procedure. However, there is a difference between the study population and location. General health questionnaire (GHQ-12) has been used in various studies and its validity and reliability has been tested to be sporadic. The reliability of this instrument was tested to be 0.868.

#### **5.1.4 Associated factors of psychological stress**

The various sources of psychological stress identified among the respondents were divided into personal, family, school, peer-pressure, and emotional factors. Among the personal factors, 14.7% of the respondents stated that they do not like my physical appearance. This is like what was stated in a study by Jeanne et al, (2017) that most adolescents are concerned about their physical appearance which is more common with girls than boys and this is consistent with the findings of this study. About 22% of the population stated that they feel inferior to others and 39.5% are driven by competition which is like the findings gotten by Jeanne et al, (2017) that observed setting of unrealistic goals and excessive competition as factors that can result in



psychological stress among students. In this study, about 35% of the respondents reported that they love to their time while doing things. This habit might create room for laziness or procrastination which might result in psychological stress when faced with deadlines.

Also, some personality types can predispose adolescents to psychological stress if not managed adequately. Personality traits are the various individual's variations that show distinct habits and patterns of people's thoughts, actions, and behaviours. According to Hisam et al, an individual with the type A personality has a sense of urgency and an excessive competitive drive and this set of people are known to get stressed easily. This is similar what was gotten in this study since 39.5% stated that they are driven by competition.

About 35.0% of the respondents were identified to have the personality B since they said they love to take their time while doing things. Those with the type B personality are easy going and they are known to take their time while doing things, they are less prone to getting psychologically stressed but can be faced with stress when faced with deadlines/urgent actions. This is consistent with this study that stated that they can control their anger, anxiety, and temper (Hannah& Akmal, 2016). Also, 66.8% of the respondents were identified to have the Type C personality since they stated that they are loyal to friends and families, this has been observed to be a major trait of those with this personality and have been found to be more prone to psychological distress/depression than Type A according to Durai in a similar study while Type D personality type are known to have a distressed personality type due to their negative and pessimistic view of friends which makes them to be at a higher risk of getting psychological distressed. This is like the findings gotten by Polman et al in (2010).

In addition, the various family factors identified among these respondents are not being understood by their parents, having too much expectation from parents, not getting financial support from their parents and parents always having disagreements all the time. This is consistent with the findings gotten in a study that stated that some families place a great deal of stress on students by telling them that they need to acquire good grades, lack of parent-child communication, poverty, arguments/divorce between parents and shallow understanding of each other's expectations (Kempf, 2011). The school factors identified among the respondents are

having difficulty with some subjects, not getting along with teachers, their expecting too much from them and finding it difficult to keep with schoolwork and abiding rules. This is consistent with the findings from Eckotlu and Chafia that stated that the various school stressors are: too much homework, unsatisfactory academic performance, preparation for test/examination, lack of interest in a particular subject. The pressure to perform well and exceeds the expectations of parents and teachers can place a great deal of psychological stress among adolescents.

Other sources of psychological distress gotten from this study are classified under romantic relationships and peer-pressure factors. This is consistent with the findings of Eckotlu and Chafia that peer pressure, making new friends, romantic relationships play a vital role in contributing to psychological stress.

The various factors identified from this study were significantly associated with the prevalence of psychological stress. This is contrary with the findings gotten from the study that stated that school factors were mostly associated with the prevalence of psychological stress (Akande et al, 2014). Age was found to be significantly associated with the prevalence of psychological stress which implies that as adolescents gets older, the rate of psychological stress increases. This is contrary to the results gotten from the study is contrary to the study among school-attending adolescents in Benin-city that showed that age has no significant association with psychological stress (Akanni et al in 2016) but consistent with the findings gotten by Myklestad et al in (2011). There was no significant association between family related variables and the prevalence of psychological stress which is consistent with the results gotten in this study (Akanni et al, 2016).

#### **5.1.5 Coping mechanism of psychological stress**

The results gotten for this study was like what was reported by Yusoff, (2010) that was done among secondary school students in a Malaysian government secondary school using Brief cope questionnaire in which substance abuse and avoidance were the most employed coping strategies among adolescents. This implies that many adolescents prefer the emotion-focused strategies than the problem-solving coping strategies which are more effective in curbing psychological stress. The results gotten from this study is also like a study conducted among upper six students aged 19 years from six secondary schools in Melaka in which six coping strategies were

identified, which are: self-distraction, use of instrumental support, venting of emotions, self-blame, behavioural disengagement and denial with the use of the Brief Cope questionnaire.

In this study, the respondents with the type A personality were observed to be significantly associated with active coping and substance use and emotional support. This means that respondents with personality type A always turn into other activities, seek help/advise from parents, teachers and friends and use alcohol, cigarettes and drugs when faced with chronic stressful situations while those with the type B and type C personality types were significant with planning (Zetu et al, 2013). This shows that they take actions to make the situations better when faced with a chronic stressful situation. Those with type D personality type were observed to be significantly associated with venting of emotions, self-blame and denial which implies that the respondents with personality type D express negative feelings to others, live with the problem and blame themselves when they are psychologically distressed (Polman et al, 2010).

The results gotten from this study showed that about half of the respondents indicated that they go to the movies when faced with psychological stress. This is like the findings reported by Priyanka and Kshipra, 2017 that the most common strategy employed by the adolescents is distraction which includes going to the movies and watching TV. However, the results gotten by Zimmer-Gimbeck et al, 2011 reported that majority of adolescents prefer to use problem solving approach such as seeking support to deal with stressors. This is contrary to what was gotten from this study since majority of the respondents preferred to employ the emotion focused strategy in dealing with stressors that are faced daily.

## **5.2 Conclusion**

There is a low awareness level of psychological stress which explains the fact why many of the in-school adolescents have no knowledge on the topic being researched on. Though, the respondents were able to identify the various signs and symptoms of psychological stress among adolescents, they had little knowledge on the positive ways of coping with psychological stress. This little knowledge on positive coping strategies can result in the increase of suicidal behaviours among these adolescents since they do not have the adequate skills/resilience on

managing psychological stress among the respondents. Mental health can only be sustained when proper measures are taken to prevent the prevalence of psychological stress among the in-school adolescents. Hence, special consideration should be placed on increasing the awareness/knowledge of the public most especially students on the knowledge, associated factors, and positive coping strategies of psychological stress. With respect to information, emphasis should be placed on the various signs and symptoms of psychological stress for it to be identified early and prevented in time before it results into depression, suicide, and death.

One possible limitation of sustaining mental health among adolescents in schools is that there are no effective/available counsellors in schools anymore. Many of the respondents reported that they do not talk to their counsellors because they are not available and cannot be trusted with their information's /secrets. Therefore, it is necessary to plan and implement various intervention programs that will enlighten the school authorities, teachers, parents, and adolescents on the importance of counselling and counselling skills to reduce the menace of psychological stress in the world at large.

Also, a lot of studies have been centred on the influence of school factors on psychological stress among in-school adolescents while side-lining the other factors. This study have been able to establish the fact that there are other factors that have greater relationship with the prevalence of psychological stress compared to just school factors e.g., family factors, personal factors peer-pressure and factors based on romantic relationship.

### **5.3 Recommendations**

- Continuous sensitization must be done among students, teachers, and parents by the various schools in the local government on the various factors that can influence the development of psychological stress and strategies should be adopted on ways to reduce the menace of psychological stress.
- Continuous enlightenment programmes on psychological stress should be conducted to reduce the rate of psychological stress among adolescents in schools and promote its positive coping strategies amidst the respondents. Parents, teachers, and counsellors should be trained on how to offer proper counselling services to adolescents to improve their mental health.

- Mental health education should be inculcated into the school curriculum since the physical health of adolescents is linked with their mental health. This will help to boost the knowledge of adolescents on this topic thereby improving their coping strategies of psychological stress.
- More studies should be done on the knowledge of adolescents on psychological stress and its coping mechanism. This will help to determine if the level of knowledge of this topic is increasing or decreasing by comparing studies that has been carried out on it.
- The Ministry of Health in collaboration with organizations that promote mental health within Ibadan should revive the various youth friendly centres located in Ibadan by employing people with young minds that can flow easily and effectively with teenagers by imbibing all counselling skills needed to improve the mental health of adolescents in Ibadan.
- Ministry of Health should collaborate with the media to increase the awareness of people on psychological stress by providing instant services where people especially adolescents can receive assistance when depressed/hurt. This can be through radio jingles, broadcast messages, media posts and instant messages through SMS. This will help to increase the awareness of adolescents thereby improving the mental health of adolescents.
- It is also very necessary to include religious leaders in the campaign of psychological stress in their various churches and mosques since they serve as a major influence on adolescents in or world today.
- Stress management techniques should be integrated into the educational curriculum by the ministry of education to further create the consciousness of students towards stress management.

#### **5.4 Implications for Health Promotion and Education**

The findings of this present study provides important information on knowledge, associated factors, prevalence, and coping mechanisms of psychological distress among in-school adolescents in Ibadan-North Local government in Ibadan. Health promotion and education is all about helping people to fully attain detailed health knowledge and potential through interventions designed to improve physical, psychological, educational, and great results for an individual. These programs would help to reduce the overall health care cost through the prevention of health problems, promotion of healthy lifestyles and improving the access to health services and care. The intervention chosen is usually guided by evidence-based information, research and studies. This study has established that low level of knowledge, associated factors,

high prevalence, and coping mechanisms of psychological stress are the gaps that have to be solved through relevant health promotion and education strategies. The following are some of strategies that can be adopted.

### **Public Enlightenment**

There is need to create emphasis/awareness on the various signs and symptoms of psychological distress and how it can be managed positively. This can be done through a community-based behavioural change communication program that is instituted in the school community. This is aimed at improving the knowledge of adolescents on psychological stress, associated factors that can predispose them to psychological stress and the positive coping strategies towards psychological stress. Therefore, it is important that all levels of government and concerned organizations to conduct aggressive campaigns using the print and electronic media, outreach programs and rallies to achieve better awareness and knowledge on psychological stress and its coping mechanisms.

The various behavioural change communication materials that can be used for this public enlightenment are: posters, flyers, health talk sessions on the radio and television, broadcast messages/post on the internet. These messages will be tailored towards the different signs, symptoms, associated factors, and coping strategies of psychological stress. Also, there is need to include their parents and teachers in the campaigns to reduce the various factors that predispose them to psychological stress.

### **Training**

There is need for the various development organizations/partners to collaborate with ministry of health and education on organizing large scale training of adolescents, parents and teachers on psychological stress and its positive coping strategies. This can be done by organizing mental health talks in different schools on how adolescents can sustain/improve their mental health. Engaging the teachers and parents through a seminar on how they can help to build the resilience of adolescents towards psychological stress. This is an opportunity for governmental and non-governmental bodies to develop training programs in schools, churches, and mosques on improving the mental health of adolescents. The use of materials such as charts and flyers will

help to reinforce the messages during the talk session. Questions and answers before and after the talk session would help in evaluating the objectives that were developed to facilitate the training program.

### **Advocacy**

The health promotion strategy in the form of advocacy can also be used in reducing psychological stress among in-school adolescents. Mental health programs and policies should focus on helping to mitigate the various factors that predispose in-school adolescents towards being psychologically stressed. This can be accomplished by developing methods to promote good teacher-student relationship in schools and enhance a positive relationship between in-school adolescents and their parents. Parents and teachers must be trained on how to develop good relationship with adolescents through good communication skills and building resilience in them. Furthermore, other advocacy methods such as the use of the media and lobbying could be used to promote the awareness of psychological stress among those who are concerned.

### **Counselling**

Counselling is also an effective strategy that can help to reduce the peril/risk of psychological stress among adolescents in schools. This is because respondents at this stage are not matured mentally to take rational decisions on their own since they tend to live through self-maturity. There is need to revive good counselling services in schools by recruiting and training personnel that have good counselling skills and would be able to relate well with the students. This will help to boost their self-confidence since they know there is someone they can always talk to when faced with stressful situations that they cannot manage on their own. Also, counselling adolescents can also help to build resilience in them to increase their positive coping strategies when faced with chronic stressful situations than opting for the negative behaviours. Parents should also be good counsellors to their children since they have the first contact to their children and spend more time with them than a teacher/counsellor can spend with them. They must learn to be available, full of understanding, less judgemental and friendly. This will help to boost the self-esteem of adolescents that they are loved and cared for by their parents.

In addition, Youth friendly centres should be more accessible to adolescents by training health workers on ways to relate with teenagers and how to keep information's given them as confidential as possible.

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## APPENDIX IV

### Coding Guide

#### Psychological distress and coping mechanisms among in-school adolescents in Ibadan North Local Government area, Ibadan, Oyo State, Nigeria

Questions	Variable (Question statements)	Variable label	Code
Q1	Age at last birthday		
Q2	Gender	Male	1
		Female	2
Q3	Ethnicity	Yoruba	1
		Igbo	2
		Hausa	3
		Others (Start from)	4
Q4	Educational level	JSS1	1
		JSS2	2
		JSS3	3
		SS1	4
		SS2	5
		SS3	6
Q5	School type	Private	1
		Public	2
Q6	Religion	Islam	1
		Christianity	2
		Traditional	3
Q7	Father's Highest level of Education	No formal education	1
		Primary	2
		Secondary	3
		Vocational	4
		NCE	5
		OND	6



		HND	7
		University	8
Q8	Father's occupation	Artisan	1
		Professional	2
		Self-employed	3
		Student	4
		Unemployed	5
Q9	Mother's highest level of education	No formal education	1
		Primary	2
		Secondary	3
		Vocational	4
		NCE	5
		OND	6
		HND	7
		University	8
Q10	Mother's occupation	Artisan	1
		Professional	2
		Self-employed	3
		Student	4
		Unemployed	5
Q11	Type of family	Monogamy	1
		Polygamy	2
Q12	Relationship with your Dad	Close	1
		Very close	2
		Not close	3
Q13	Relationship with Mum	Close	1
		Very close	2
		Not close	3
Q14	Relationship with Siblings	Close	1

Q15	Number of siblings	Very close	2
		Not close	3
Q16	Social class	Poor	1
		Average	2
		Rich	3
Q17	Position in the family	First	
		Last born	1
		Only child	2
		Others (start from)	3
Q18	Parent's marital status	Married	1
		Divorced	2
		Widowed	3
		Both parents are dead	4
Q19	Relationship with teachers	Close	1
		Very close	2
		Not close	3
Q20	Relationship with classmates	Close	1
		Very close	2
		Not close	3
Q21	Have you heard about psychological distress?	Yes	1
		No	2
Q22	Where did you hear it from	Media sources	1
		Religious sources	2
		Interpersonal sources	3
		Other sources(Start from)	4
Q23	Which of the following is true about psychological distress except	The ability to ignore a problem	2
		This occurs when you have difficulty coping with a situation	0

		This is the emotional response of the body to a chronic stressful event	0
Q24	What are the factors that triggers the development of psychological distress except	Too much work	0
		Being bullied in school	0
		Lack of understanding by parents	0
		All of the above	0
		None of the above	2
Q25	The following are recognized signs of psychological distress except	Poor performance	0
		Being attentive in class	2
		Love to be alone	0
		Inadequate sleep	0
Q26	Which of the following is a symptom of psychological distress	Running	0
		Sleeping	0
		Lack of energy	2
		Vomiting	0
Q27	The following are the consequences associated with psychological distress except	Suicide	0
		Eating disorder	0
		Depression	0
		Good health	2
		Hypertension	0
Q28	The most common symptom of psychological distress is	Hunger	0
		Joy	0
		Sadness	2
Q29	The following are the ways by which psychological distress can be managed except	Seek medical help	0
		Solve the problem that is causing the issue	0
		Avoidance(ignoring the problem)	0
		Dancing	2
Q30	The classified warning symptoms of psychological distress	Cognitive symptoms	0

		Physical symptoms	0
		Behavioral symptoms	0
		Emotional symptoms	0
		Developmental symptoms	2
Q31	I do not like my physical appearance	Disagree	1
		Agree	2
		Undecided	99
Q32	I feel inferior to others	Disagree	1
		Agree	2
		Undecided	99
Q33	Competition motivates me	Disagree	1
		Agree	2
		Undecided	99
Q34	I love to take my time while working	Disagree	1
		Agree	2
		Undecided	99
Q35	I see things from a negative view	Disagree	1
		Agree	2
		Undecided	99
Q36	I am very loyal to friends and family	Disagree	1
		Agree	2
		Undecided	99
Q37	My parents do not understand me	Disagree	1
		Agree	2
		Undecided	99
Q38	I have too many responsibilities at home	Disagree	1
		Agree	2
		Undecided	99
Q39	My parents do not support me	Disagree	1

	financially		
		Agree	2
		Undecided	99
Q40	My parents are expecting too much from me	Disagree	1
		Agree	2
		Undecided	99
Q41	My parents have disagreements all the time	Disagree	1
		Agree	2
		Undecided	99
Q42	I find it difficult to keep up with school work	Disagree	1
		Agree	2
		Undecided	99
Q43	I find it difficult to wake up early to go to school	Disagree	1
		Agree	2
		Undecided	99
Q44	My teacher expects too much from me	Disagree	1
		Agree	2
		Undecided	99
Q45	I have difficulty with some subjects	Disagree	1
		Agree	2
		Undecided	99
Q46	I have difficulty with abiding by the rules in school	Disagree	1
		Agree	2
		Undecided	99
Q47	I am not getting along with my teachers	Disagree	1
		Agree	2

		Undecided	99
Q48	I am being bullied by my classmates	Disagree	1
		Agree	2
		Undecided	99
Q49	I have pressure fitting in with my peers	Disagree	1
		Agree	2
		Undecided	99
Q50	I always have disagreements with my peers	Disagree	1
		Agree	2
		Undecided	99
Q51	I am being ignored by the one I like	Disagree	1
		Agree	2
		Undecided	99
Q52	I am not getting along with my boy/girl friend	Disagree	1
		Agree	2
		Undecided	99
Q53	My boy/girl friend is cheating on me	Disagree	1
		Agree	2
		Undecided	99
Q54	I have been jilted by my boy/girlfriend several times	Disagree	1
		Agree	2
		Undecided	99
Q55	During the last 30 days, I do not concentrate while studying	Never	1
		Sometimes	2
		Always	3

Q56	During the last 30 days, I do not sleep because I am worried	Never	1
		Sometimes	2
		Always	3
Q57	During the last 30 days, I am not able to make decisions effectively	Never	1
		Sometimes	2
		Always	3
Q58	During the last 30 days, I feel unhappy	Never	1
		Sometimes	2
		Always	3
Q59	During the last 30 days, I feel depressed	Never	1
		Sometimes	2
		Always	3
Q60	During the last 30 days, I have lost confidence in myself	Never	1
		Sometimes	2
		Always	3
Q61	During the last 30 days, I am constantly under pressure	Never	1
		Sometimes	2
		Always	3
Q62	During the last 30 days, I do not enjoy normal activities	Never	1
		Sometimes	2
		Always	3

Q63	During the last 30 days, I often feel worthless	Never	1
		Sometimes	2
Q64	During the last 30 days, I am unable to face problems	Never	1
		Sometimes	2
		Always	3
Q65	During the last 30 days, I am unable to overcome difficulties	Never	1
		Sometimes	2
		Always	3
Q66	During the last 30 days, I feel hopeless about life	Never	1
		Sometimes	2
		Always	3
Q66	Have you been turning to work or other activities to take your mind off things?	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q67	Are you psychologically stressed	Yes (15 and above)	1
		No (Less than 15)	2
Q68	Have you been turning to work or other activities to take your mind off things	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q69	Have you been saying to yourself “this	Not at all	



	is not real”		1
		A little bit	2
		A medium amount	3
		A lot	4
Q70	Have you been using alcohol, cigarette or other drugs to make yourself feel better	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q71	Have you been getting emotional support from people	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q72	Have you been giving up in dealing with the problem	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q73	Have you been taking actions to try to make the situation better?	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4

Q74	Have you been saying positive things to reduce the negative feelings?	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q75	Have you been getting help and advice from parents, friends and teachers	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q76	Have you been trying to see the situation from a positive view	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q77	Have you been criticizing yourself	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q78	Have you been trying to come up with a strategy to solve a problem	Not at all	

			1
		A little bit	2
		A medium amount	3
		A lot	4
Q79	Have you been giving up the attempt to cope with the situation	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q80	Have you been making fun of the situation	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q81	What have you been doing to think about it less	Going to movies	1
		Watching TV	2
		Reading	3
		Imagining	4
		Sleeping	5
		Shopping	6
		Hanging out with friends	7
		Having sex with my boy/girlfriend	8
		Cry	9
Q82	Have you accepted the reality of the fact that the situation has already happened	Not at all	1

		A little bit	2
		A medium amount	3
		A lot	4
Q83	Have you been expressing your negative feeling to others	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q84	Have you been trying to find comfort/advice from your mosque or church	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q85	Have you been learning to live with the problem	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4
Q86	Have you been blaming yourself for the things that happened	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4

Q87	Have you been praying and meditating about the situation	Not at all	1
		A little bit	2
		A medium amount	3
		A lot	4

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