

**FACTORS CONTRIBUTING TO DEPRESSION IN ADOLESCENT ADMITTED
IN A PSYCHIATRIC HOSPITAL**

by

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DECLARATION

I hereby declare that **FACTORS CONTRIBUTING TO DEPRESSION IN ADOLESCENT ADMITTED IN FEDERAL NEURO-PSYCHIATRIC HOSPITAL ENUGU, NIGERIA** is my own work and all sources that I have quoted or used have been written down and acknowledged by means of complete references and this particular work has not been written and submitted before for any other degree at any other university.



Signature

31st January 2019

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**FACTORS CONTRIBUTING TO DEPRESSION IN ADOLESCENT ADMITTED IN
FEDERAL NEURO-PSYCHIATRIC HOSPITAL ENUGU NIGERIA**

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ABSTRACT

The goal of this study was to discover the contributing factors to depression in adolescents leading to hospitalisation to a psychiatric hospital. The study was conducted in a Federal Neuropsychiatric Hospital Enugu, Nigeria. The study population was adolescents (between 11-19years of age) both males and females who were diagnosed of depression admitted between the year of 2017-2018 at Federal Neuropsychiatric Hospital Enugu, Nigeria. A qualitative descriptive research was done. Participants were chosen by purposive (non-probability) sampling methods. Data was collected through face-to face individual interviews method. The study's findings showed that factors contributing to depression in adolescents are related to biological, psychological and social causes. It would further be useful to help the health professionals in their care of adolescents' psychiatric patients with depression having known the contributing factors. The study recommended early detection and treatment that could reduce incidence of depression and hospitalisation in the psychiatric units.

Keywords: Adolescents; depression; contributing; factors; psychiatry

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DEDICATION

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COMMON ACRONYMS AND ABBREVIATIONS USED IN THIS BOOK

AYA	Adolescents and Young Adults
BIF	Biological factors
CBT	Cognitive Behavioural Therapy
DALY	Disability-adjusted life years
HIV	Human Immuno-Deficiency Virus
MetS	Metabolic Syndrome
OB	Obese
OW	Overweight
PSF	Psychological factors
PSTD	Post-traumatic stress disorder
PV	Poly-victimisation
UNISA	University of South Africa
WHO	World Health Organisation
SOF	Social factors
YLD	Years lived with a disability
YLL	Years of life lost

CHAPTER 1

INTRODUCTION AND ORIENTATION OF THE STUDY

1.1 INTRODUCTION

Investigating the contributing factors to depression in adolescents admitted in Federal Neuropsychiatric Enugu, Nigeria is the aim of this study. Enugu is one of the states located in the south-eastern part of Nigeria. It is the home of the Igbo of south-eastern and few Idoma/Igala people. There are two major government- owned psychiatric hospitals in Enugu.

To obtain a clear view of adolescent depression in this study, mental health, mental disorder, mental illness, and depression will be clarified and defined under the section of definitions of terms.

Depression can be understood as a state of mood that is typical of unhappy feeling, dejection, despair or loss of hope in one's life. Depression is believed to be happen sooner or shortly after a loss, real or imagined, such as self-esteem, a love object, independence, free will, physical honour, autonomy, early life and material possessions (Uys & Middleton 2010: 831).

Puberty is a period of high susceptibility to depression, with risk factors that are determined by biological, cognitive, and social-environmental changes in growth. More than half of adolescents complain experiencing depressed mood and 8% to 10% has clinically diagnosable symptoms. Depression in the adolescents adversely affects all areas of growth and development, including educational, cognitive, community, and family functioning, and when it is not treated, it can have major long-term devastating effects.

Depression during the period of puberty is a likely forecaster of continuing depression in later life and lasting impairment in functional ability. Moreover, it leads to a double fold in danger for an act that is suicidal. This is a considerable health concern among

the adolescents, having the possibility of harsh and permanent consequences: hence, the need for efficient intervention is definite (Sanno, Jenine, & Anneliese 2012:2).

Feeling listless and unhappy is a usual occurrence in the lives of people. However, this is also followed by a sense of bouncing back to a happier mood (Gilbert 2009:1). The sense of happiness and being unhappy are different from individual to individual and differ by stages of development. Moreover, an adolescent diagnosed with depression has a state of sadness and negative thoughts that last longer and overshadow all of the thinking and behaviour. Depression can occur exclusive of any triggering events or for no evident reasons (ibid).

1.1.1 Types of depression

According to Khadija, Muhammad, Shazana, Waqas, Moon and Yasir (2017:1), there are various forms and severity of low mood. The most general form of low mood is identified as unipolar depression. People feel several different symptoms such as feeling low, tiredness, hopelessness and a lack of motivation for at least two weeks. Depression can be categorised as mild, moderate or severe depending on how many symptoms a person has and the degree of severity.

Conversely, bipolar disorder, which is often called manic-depressive disorder or manic depression is a particular form of depression whereby people go through alternating phases of being depressed and being extremely active and euphoric (manic). Dysthymia is a chronic depressive disorder in which patients may be worried, dejected and down, but this does not affect their everyday lives. Some people are particularly affected by depression in the dark summer and winter months. This type of depression is referred to as seasonal affective disorder. Many mothers experience inexplicable mood swings after childbirth, which is known as postnatal, or post-partum low mood.

The detection of major depression is not only based on its harshness but also based on its consistency in the occurrence of behavioural, physical and cognitive symptom, as well as the extent to which it damages the functional and societal ability (Health 2010:34). Major depression has some behavioural and body symptoms that are visible for example; being tearful, irritable, isolated, worsening of pre-existing pains, pains resulting from increased tension of the muscle, an absence of libido, exhaustion and

reduced movement or enjoyment. However, there is feeling of agitation, which is common or marked presence of anxiety that is also present. Usually, there is less sleep and reduced appetite, which could cause significant loss of body weight, anorexia and various medical problems. Although in some people the symptoms identified above could easily be recognized while in others it could be a huge problem. The mental stage of a depressed adolescent when dealing with the conscious mind could lead to issues like poor concentration or attention, negative thoughts about themselves, insecurity and worries (Health 2010:35).

Avenevoli, Knight, Kessler and Merikangas (2008: 6) further asserts that major depressive disorders have been a major problem in Public Health sector over the years. This problem has cut the eyes of different stakeholders, multidisciplinary teams, public sectors and different private sectors. Researchers that depression starts from adolescent years and if not taken care of, proceeds to the adult stage in the future have noted it.

However, in this study, our focus is on exploring the contributing factors of depression in the adolescents admitted in the psychiatric unit. It is not easy to state the prevalence rate of depression; as most depressed adolescents do not show up in the hospitals to be treated.

Bhatia (2012:74) accentuates that depression has a negative blow on the educational, social and mental performance of the adolescents and this could affect the inter as well as the intra relationship. A feeling of not being wanted could lead to suicide. Furthermore, the researcher maintains that there are 3% to 5% of adolescents diagnosed of depression. Depression can strike at any period or phase in life, but the researcher observed that most adolescents become moody without a valid reason. Many parents or guardians see their children been moody or having a low mood and cannot understand the causes. There is a need to identify the problems of these adolescents in order to understand the contributing factors to their condition.

1.2 BACKGROUND INFORMATION ABOUT THE RESEARCH PROBLEM

The overview of the research, the background and the research statement were discussed in this section. This section is important to situate the reader as to the

magnitude of depression as a problem of adolescents. It further provided the reader with what prompted the researcher to undertake such a study.

1.2.1 Source of the research problem

Overtime, perspectives on depression have changed from a view that it largely afflicts adult to the recognition that depression also occurs among children and adolescents. Depression can occur in all children of all ages, hence becoming persistent with increase in age (Gouws 2015:168). The issue can be worsening by the hormonal changes of the adolescent thereby affecting their growth and exposing them to stress, trauma and violence. (Bach & Louw 2010:26). Minors cases of low mood in adolescents are usually less acute and pass relatively quickly. However, if is not treated, could cause adverse effect on their mental state that could mean focusing on the bad part of their lives and it may develop into future damage. The researcher is working in a psychiatric hospital and has observed so many depressed adolescents admitted in the psychiatric unit. This casual observation has ignited the researcher's interest to uncover why adolescents have depression and what contributes to it. This research study was undertaken to learn more about issues contributing to depression in adolescent patients admitted in a psychiatric unit.

1.2.2 Background to the research problem

Mental Health America (2017:1) assert that it is not strange for people that are young to have a feeling of loneliness, sadness, gloomy or being unwanted intermittently. They further stated that adolescence is always a period, with mental changes that go together with a phase in life. Educational, community, and relative's expectations are unlikely to generate a strong sense of feeling unwanted and this could lead to a feeling of unhappiness. (Mental Health America, 2017:1). When there are life challenges, adolescents overact. Adolescents easily have the feeling of giving up because things do not work out the way they planned it. They become worried, perplexed. Adolescents are swamped with contradictory messages from the environment they find themselves.

In the present world, adolescents are controlled by external factors such as the social media. Lessons are being taught around Sexually Transmitted Diseases (STD), drugs, smoking etcetera even though some of the knowledge gained becomes too much for their age. Guidance by a matured individual is needed to understand all the changes they might be experiencing. When a sudden mood change that is negative is being noticed in an adolescent, the matured individual need to monitor the situation in order to suggest the need for medical care. More importantly, they need to be helped in order to control their emotions. The questions begin to arise to know the cause and contributing factors of their depression. The researcher intends to explore the factors contributing to depression, recommend strategies to improve their moods, enjoy relationships, school performance, and lastly see the importance of living thereby reducing the likelihood of attempting suicide.

1.2.3 Research problem

According to Levy (2014:1), depression is the one of the major psychosocial problems seen among adolescents. A South African study has indicated that 8% of children under 12 and 20% of children older than 12 who are seen at child guidance clinics are depressed Uys & Middleton (2010:734). A research study done by Kleintjies et al. (2006) as also cited by Uys and Middleton (2010:734) confirms the prevalence of 8%. Adolescents' mood can be low because of being at risk to the influence of severe social stressors such as chronic family conflict, mistreatment, neglect, academic failure, learning problems, underachievement, separation or loss. The problems they encountered make them depressed and cannot cope with life. This has also caused them to stay away from school activities because of their period of therapy (three weeks) in the private hospital setting.

There is a need to explore factors that contributed to their depressed moods. Hence, the researcher focused on the factors contributing to adolescent depression in those ones admitted in her place of work hoping that it would give the answers to the research problems stated above.

1.3 PURPOSE, OBJECTIVES AND RESEARCH QUESTIONS OF THE STUDY

This section focuses on the study purpose, objectives and research questions.

1.3.1 Research purpose

The purpose of the study was to look at the contributing factors to depression in adolescents admitted in Federal Neuropsychiatric Hospital Enugu, Nigeria.

1.3.2 Research objectives

The objectives of the study are the following;

- To search and elaborate factors contributing to depression in adolescents admitted in a psychiatric unit.
- To recommend preventive measures to health care managers based on recommendations of the research.

1.3.3 Research questions

Botma, Greeff, Mulaudzi and Wright (2010:51) assert that research questions are often the direct rewording of the research statement. This question arose because of the clinical problem the researcher observed in her place of work.

Research questions were as follows:

- What are the various factors contributing to depression in adolescents in the psychiatric unit?
- What are the recommendations derived after the research has been carried out for reduction of depression in adolescents?

1.4 SIGNIFICANCE OF THE STUDY

There are many adolescents being diagnosed with depression and the contributing causes of their depressive state need to be identified and dealt with. This study could

help the clinicians in the hospital to develop an open, trusting relationship with adolescents, identify their problems build a therapeutic relationship, make better decision, and give counselling where needed or refer the adolescents to other professional in the field (Levy 2014:1)

The study would further be useful to adolescents who would be motivated to speak out about their health condition (depression). It could also help them to talk about it with their counterparts hence creating awareness about treatment and seeking for appropriate help. The findings could equip the researcher with the knowledge of how to manage depression in adolescents.

The study intended to reduce the incidence of depression among adolescents; improve their life towards attainment of adulthood. The findings will also help the health professionals (multidisciplinary team members) in modifying the treatment of depression (intervention strategies) having known the contributing factors. It will also help the policy makers while reviewing the treatment modalities.

The study would validate existing knowledge of adolescent depression by filling the gaps on what has been studied previously both nationally and globally while merging it with the current study before having a recommendation.

1.5 DEFINITIONS OF TERMS

1.5.1 Adolescent

According to Steinberg (2014:3), an adolescent is any individual usually between 11 to 19 year of age.

1.5.2 Adolescence

The stage that occurs in any individual from the age of 10 to 19 years. It is divided into three stages. The early adolescence age is from ages 10 to 13 years followed by

middle adolescence, which ranges from ages 14-16 years and late adolescence, which is from ages 17-19 years. (WHO 2016:2).

1.5.3 Depression

American Psychiatric Association (2013:160) defines depression as a mental illness that could be easily noticed within two weeks due to various symptoms such as low mood, reduced self-esteem, low energy and pains.

1.5.4 Contributing

Contributing can be defined as helping to cause or bring about (Concise Oxford English Dictionary 2004:311)

1.5.5 Factor

Factor can be defined as an issue that needs to be looked into for an appropriate result (Concise Oxford English Dictionary 2004:509).

1.5.6 Admission

Admission can be defined as the process of allowing people to enter the hospital for treatment (Concise Oxford English Dictionary 2004:16)

1.5.7 Psychiatric unit

A psychiatric unit is a ward where mental illness, emotional disturbances and abnormal behaviour are treated and diagnosed (Concise Oxford English Dictionary 2004:1158)

1.5.8 Mental health

Uys and Middleton (2010:834), mental health has to do with psychological state of mind of an individual to adapt to everyday life and stress.

1.5.9 Mental disorder

Mental disorder is defined as a clinically conditional affecting an individual's emotional state of mind causing discomfort, distress or some kind of disability (Uys & Middleton 2010: 834).

1.5.10 Mental illness

Mental illness is a medical condition that affects the feeling, the thoughts and the action of people (Uys & Middleton 2010:107).

1.6 THEORETICAL FOUNDATIONS OT THE STUDY

A qualitative approach will be used. According to Joubert and Ehrlich (2012:318), qualitative approach allows researchers to get in-depth information on their subjects, generally by talking to them or observing them, which enables the researcher to look deeply into how people think and view a particular situation. According to Botma et al (2010:211), its exploration and description of phenomena is in-depth. A qualitative approach is the investigation used to search for answers relating to knowledge, skills and feelings (Kumar 2012:20).

1.7 RESEARCH DESIGN AND METHOD

Research design involves planning, organising, collecting and analysing data to provide answers to the question that is being researched (Welman, Kruger & Mitchell 2012:52). In the study, descriptive and exploratory design was used to obtain in-depth understanding.

1.8 SCOPE OF THE STUDY

The research focused on the adolescents both boys and girls admitted in Federal Neuropsychiatric Hospital Enugu, Nigeria. The research's result would not be generalised to the target audience had to be limited to a particular set of people. As

mentioned earlier, the research focused mainly on the depressed adolescents admitted in Federal Neuropsychiatric Hospital Enugu, Nigeria during the period of the study. The target population for the research are English-speaking individuals who volunteered to participate in the research. This is because English is the official language of Nigeria, as the researcher did not want to encounter a problem of interpretation/translation error during data collection and analysis. Only the viewpoints of selected participants who volunteered were used.

1.9 ETHICAL CONSIDERATION

These fundamental ethical principles were considered during the course of the study. They were the principle of autonomy, justice, beneficence, and non-maleficence and other related ethical concepts.

1.9.1 Principle of autonomy: - The ability for each individual to make up their mind or decision (Joubert & Ehrlich 2012:32). Each participant was given the freedom to express their mind

1.9.2 Principle of justice: It is defined as the ability to see everyone has been equal with equal rights (Joubert & Ehrlich 2012:33). No one was given any preferential treatment.

1.9.3 Principle of beneficence it is referred to as the ability to constantly do well. It also includes maximising possible benefits and minimising possible harm (Grove et al 2013; 687).

1.9.4 Principle of non-maleficence no harm is being infiltrated on any individual. (Joubert & Ehrlich, 2012:33). No harm is deliberately done on the research subjects.

1.9.5. Confidentiality is not disclosing participants shared information to others. (Grove et al 2013:172). All the private information concerning the research is kept confidential and not given out to others without the permission of the participants.

1.9.6. Right to privacy is when the participants decide to either participate or not participate while deciding on the information they will like to share. (Grove et al 2013:169). The interviewer ensured that participant's right to privacy is taken into consideration at all times.

1.10 STRUCTURE OF THE DISSERTATION

The Thesis is structured as follows:

Chapter 1 introduces the study while focusing on the background, problem statement, objective, theoretical framework, research design and methodology...

Chapter 2 focuses on literature around depression, depression in adolescent, prevalence of depression in adolescents, contributing factors to adolescent depression in adolescents and effects of depression in individual, family, and community.

Chapter 3 looks at research methodology, population, trustworthiness and data analysis method.

Chapter 4 will focus on the research findings

Chapter 5 looks at the suggestions and concluding remarks covered in the thesis.

1.11 SUMMARY

The chapter focuses on the content discussed, aim of the paper as well as the underlying information leading to the research problem.

CHAPTER TWO

LITERATURE REVIEW ON ADOLESCENT DEPRESSION

2.1 INTRODUCTION

Literature review is an important aspect in any research. It includes summaries of published journal articles, books, and other professional work on a given topic (Bernard 2013: 78). Literature review can be defined as various search, recordings and published scientific knowledge gathered about the research (Privitera 2016: 618)

Du Plooy-Cilliers, Davis and Benzuidenhout (2014:10), the word 'literature' is extensively used to refer to all types of published information. This includes textbooks, journals, articles and materials available online. The major idea of literature review is to take out information pertaining to one's research topic and the purpose is to ascertain any important material that could help to improve the research. Literature review is important because it helps to elaborate more around the research by focusing on different published articles and research done by various scholars. It also encourages new research for additional knowledge to be gained. A literature review does not only allow one to improve his/her research, but also serves as a point of reference. In other words, reviewing the literature available on your research topic will assist the research to focus on the most important issues in line with that is being discussed and it will help to guide ones' research in the right direction.

Brink, Van Der Walt and Van Rensburg (2007: 67), states that literature review helps to discover problem and break down questions, to obtain clues for the different methodology and instruments. More importantly, a literature review puts the thesis into an understandable content thereby reducing duplicate research or plagiarised work. Lastly, literature review helps to enlighten or support the study methodology and the data collected.

Literature review identifies valid sources, evaluates the sources by looking closely at the reliability and the validity in relation to the research. It allows the findings to be summarized thereby generating a concrete recommendation (Du Plooy-Cilliers et al., 2014:101)

Information included in literature review was accessed using online search engines for example, Google scholar etc., articles, scientific journals, professional books, textbooks, thesis and dissertations, magazines, newsletters, the Internet and University of South Africa library search were also used.

The review will include depression, adolescence, depression in adolescents, prevalence of depression among adolescents and factors contributing to depression in adolescents. Effects of depression in adolescents will also be discussed here and the conclusion of the chapter will be given.

2.2 DEPRESSION

Diagnostic and Statistical Manual of Mental Disorder (DSM-V, 2013), Depression can describe as a mood disorder with the various symptoms for example sadness, emptiness, irritability, and different drastically changes. Depression could cause different problems that can reduce an individual's ability to function properly. According to WHO Jordan on World Health Day 2017, there has been an increase in the number of individual suffering from depression between the years 1990 to 2013. Statistics shows an increase of 58% in South Africa and more than 253 million worldwide. Health events such as the world Health Day, with a major concentration on depression in the public, will keep on offering supports in creating a global campaign of the condition and its medical interventions. Depression has shown to be among the chief causes of disability that can happen to anyone at any given time but with little or no funding although evidence shows that taking care of the depressed individual at an early stage could improve the Country's economy (local news, 06:09AM 10th April 2017).

Depression has become a common health problem disturbing an approximate of 350 million individuals globally. It is generally understood that depression is a consequence of the complexity of various issues. It is also the principal cause of disability in adolescent globally. A chronic depression with moderate or severe intensity is a severe health problem that can lead to suicide in the affected individuals (Xia & Yao, 2015:1).

Depression has been observed recurrently in the general population and has been renamed as the frequent occurring mental illness. Considerable levels of depressive symptoms are seen in roughly 15-20% of the general population. It has also accounted for almost 75% of psychiatric hospitalisations. Depression is time-limited in most of the

cases and, when not treated, it usually resolves between three and six months. However, there is a frequent relapse among this group, and between 15% and 20% of people develop chronic depression. Fifteen percent of people who are severely depressed kill themselves eventually (suicide), irrespective of treatment intervention utilised. Depression can be difficult to diagnose, as most affected people do not easily communicate about how they feel and will not want to come to the health care setting complaining about depression. They may come with a complaint about repetitive vague physical symptoms, and with the normal physical treatment method without evident results. It ought to be remembered that two out of three people with depression never received treatment for depression. This is because either they or the medical personnel did not diagnose the condition (Uys & Middleton 2010:364).

Depression was ranked in the third position in relation to different disorders affecting the global population with a high economic cost. There is a prediction that by the year 2030, depression will be placed in the first position in various countries around the world. Research shows that more than half of the people diagnosed of this disorder later suffer from recurrent disorder with 20% of their life span (Felinhofer, Kothgassner&Klier 2016:441).

2.3 ADOLESCENCE

De Wet (2016:4) defines adolescence as an era of change to adulthood. Van Vuren (2012:79) asserts that adolescence period involves physical, cognitive and socio-emotional changes. It begins at around 10 until around age thirteen. He further explained that it is a period of storm. It is noticed that most adolescent settle well into adulthood but various factors still influence their growth.

Louw and Louw (2014:303) further explain that adolescence period can be described as a growth link between when a child becomes an adult. Nevertheless, separating adolescence from adulthood is not an easy phenomenon to define. The period of adolescence development is classified into the following, physical, cognitive, psychosocial (socio-emotional), personality, spiritual and moral development.

2.3.1 Physical development

Van Vuren (2012:79-80) indicates that all pubertal events are created by hormonal changes. These changes occur inside the human body when the hypothalamus starts to produce releasing factors. There is a dramatic increase in the concentrations of certain hormones. The male growth hormone (testosterone) in boys is a hormone related with the genitals development, an increase in height and a change in the male voice. The female growth hormone (estradiol) is a hormone related with the breast, uterine and skeletal developments in girls. The age of onset of physical development varies with each individual and is influenced by genetic and environmental factors. Adolescents experience growth both sexually and somatically.

Somatic growth of individuals includes achievement of increase in height, weight, muscular-skeletal growth, size of all organs except lymphatic system, which decreases in size, and the brain, which plateaus during adolescence. A male has longer growth period, which allows them to be heavier and taller than girls.

Boys mature sexually when the scrotum and testes (genital organs), with the pubic hair appear with the seminal vesicles and prostate growing. Facial and armpit hair becomes noticeable about two years after the pubic hair appearance. In addition, mature spermatozoa emerge between the ages of 14 and 16 years. Conversely, sexual changes in girls are bony pelvis growth, breast development, uterine, vaginal, labial and clitoral growth, secondary sexual hair appearance and menarche. Menarche occurs about two-and-a-half years after breast development (Van Vuren 2012:79).

Louw and Louw (2014:311) further accentuates that teenagers that mature early physically tend to be much taller and heavier and develop primary and secondary sex characteristics much earlier than their peers. They further explained that those teenagers that develop late tend to be smaller and lighter and develop primary and secondary sex characteristics extensively later their equals.

2.3.2 Cognitive development

Van Vuren (2012:80) describes cognitive development as the ability to reason abstractly. Reasoning abstractly is very significant in the adolescent's search of an identity as it allows the adolescent to decide which sex role behaviours are right, efficient and comfortable, and to judge their potential impact on their peer groups,

family unit and the public. Language development is complete by adolescence. Communication skills become the primary focus of development and these diverse skills are used and refined throughout life. Adolescents are capable of formal operations in which they must think about thinking. This means that they can use deductive reasoning even in situations beyond their concrete experiences.

Louw and Louw (2014:323) further explain that development of the brain during adolescence period mostly concerns the refinement, and hence the development of existing capabilities. For example, the continuous development of the prefrontal cortex throughout puberty is linked with various thinking abilities which consist of the capacity to refuse inappropriate information, originate difficult imaginary arguments, organise an approach to a complex task, follow a sequence of steps to task completion, plan for the future, imagine the impossible and control impulses. The limbic system, involved in processing social and emotional information, develops earlier than the prefrontal cortex. The differences in the timing of development of these two brain regions, may explain adolescents' risk-taking behaviour.

2.3.3 Psychosocial (socio-emotional) development

Van Vuren (2012:81) indicates that psychosocial development continues through adolescence into adulthood and old age. One very important psychosocial task is to develop healthy relationships with peers and parents. According to Erikson (1963) in his theory of psychosocial development, the most important task of adolescence is to resolve the conflicts of identity versus role confusion. Because the adolescent is dependent on parents while seeking an independent identity, it has been conventionally measured as a period of argument between parents and their children.

In their late teens (17-19 years), adolescents begin to feel more confident in them and are able to look for individuality in their friends. Some adolescents adopt negative identities that promote antisocial behaviours. He further explains that due to the peer pressure and various societal changes faced, adolescents want to experience things sexually.

2.3.4 Personality development

The adolescent gains new insights into self and others, especially as their identities are forged. It involves the development of temperament, personality trait and adaptive functioning in adolescence (Louw and Louw 2014:339).

2.3.5 Spiritual development

Adolescents come across different people in the environment and this people with different opinions, beliefs and behaviours in regards to religious matters on a daily basis. The adolescent frequently has the belief that there are more similarities than differences in many religious beliefs and practices. The adolescent focuses on interpersonal rather than conceptual matters at this stage (Van Vuren 2012:83).

2.3.6 Moral development

According to Kohlberg's theory of moral development, moral judgement depends deeply on cognitive and communication skills and on interaction with others. It begins in early childhood but becomes more fully consolidated in adolescence because of the presence of these skills. Adolescents learn to comprehend the set of rules as cooperative agreements that can be changed to fit the situation, rather than the absolutes (Van Vuren 2012:82).

Louw and Louw (2014:379) accentuate that it involves the development of a value system, which is personal to them. This guides for the adolescents' behaviour and the way they interact with the society. Characters are developed from the questions that adolescent ask about their value system, before choosing a suitable one that fits into their beliefs. Adolescence is an essential part that forms how individual think and how they incorporate their thoughts into moral principles and values.

2.4 DEPRESSION IN ADOLESCENTS

Teenage or Adolescent depression is a mental and emotional disorder, which is not different from what is experienced by adults (Krans 2016: [1]). Depression is one of the most general issues that are dealt with by adolescents irrespective not considering

religion, race, ethnic group, gender or socioeconomic position. Although it is common to say that people mood changes constantly but the fact it cannot be controlled is what makes it a disorder. (Elliot 2015:147).

On the other hand, clinical symptoms in adolescents may perhaps manifest themselves in different ways than in adult owing to the different social and developmental challenges they may have. These include pressure from peers, expectations of high academic achievement, sports, changes in hormone levels and rapid body development. Depression is related with elevated levels of stress, anxiety, and in the worst likely scenarios, suicide. It can also affect an adolescent's personal, school, social, family life and work (Krans, 2016: [1]).

Adolescent depression is more often an ignored mental health problem because they will be unable to make up their mind to reveal their feelings and hardly ever go for psychiatric aid. Bansal, Goyal and Srivastava, (2009: 43) explain that the common behavioural changes that are normally linked with the hormonal changes of this period are one of the factors that make depression so hard to diagnose in adolescents. It has only been in modern years that the medical community has recognised childhood depression as a condition that needs medical intervention. Caregivers and teachers may not easily recognise the depressive symptoms. Depression has become the single chief contributor to the global burden of disease in the age group 15-45 years (Bansal et al., 2009: 43).

Baumann (2015:316) state that adolescents with depression may present with melancholia, conduct problems, suicide attempts and functional impairment.

Alan and Christine (2009:3) explain the nature of adolescent depression as follows:

- It is typically dangerous, progressing unnoticeably,
- It is acute for a minority, prompting an emergency
- Depressive episodes tend to last average of seven to nine months.
- About 90% come to an end within one to two years (10% experience definitely longer episodes or develop a chronic depression)
- An aggregated longitudinal study shows a 40% cumulative probability of recurrent depression by two years and 70% by five years.
- Female genders are two times more likely to develop depression as their male counterparts.

The reasons are indistinct, but theories are: greater likelihood of anxiety disorders, greater likelihood of a “ruminative” response style, biological changes associated with puberty, socio-cultural factors, higher likelihood of girls experiencing stressful events as “depressogenic”, more likely to “act in” (and so develop depression and anxiety), while males are more likely to “act out” (express behaviourally and by use of drugs and alcohol).

Alan and Christine (2009:12) also argue that adolescents may keep on experiencing negative attributions, sub-clinical symptoms, and impairment of both interpersonal relationships and overall performance after recovery from depression. Depressive episodes are related physical problems, unwanted pregnancy in girls and smoking. Therefore, we can see that depressive episodes leave a “hidden scar” and vulnerability, making “recovery” a relative term. Those most vulnerable to recurrent episodes are adolescents who experience their episode at the adolescent stage and those from lower socio-economic backgrounds and academic levels.

They further explain that the adolescents perceive depression as follows:

- The phobia of return of “bad” feelings associated to their depressive state, fear of not getting as assistance, not surviving the “bad” feelings, and fear of having to do all the “tough work” in overcoming the “bad” feelings.
- The fear of depression is mostly strange, so they suggested the focal point should be on a normality discourse.
- Focusing on the passage of period, of “being/doing normal” as a process of evolving action which occurs over time, from being well to becoming sick to becoming well again is part of the normality discourse.
- The adolescents associate the terms used to express their experience of depression with problems that have proved to be unsolvable and ongoing in their lives. The particular challenging events do not essentially lead to depression, because they are not overwhelming for everybody. On the other hand, it is the on-going inability to solve their problems while living with them that these young adolescents keep referring to as part of their discourse on depression. Some of the examples are anxiety, stress about things, debts, not performing well at school, relationship problems, doing ‘stuff’ that does not

make them happy e.g. heavy drinking, being unendingly sad and feeling worthless after the death of close relatives etc.

- In a study done in New Zealand, Bennett, Coggan and Adams (2003:290) established that among young individuals who had attempted suicide, two major discourses of depression emerged: a mediatised discourse and a moral discourse (that people with depression were failures). The mediatised discourse, for the majority of the sample, constructed depression as an illness to be “passively endured, beyond their agency (ability to behave and think in a certain way)”. The “cure” lies in the specialised diagnosis and treatment of medical professionals. Depression is seen as something solid that is uncontrollable. Depression is no longer a verb that requires an explanatory phrase e.g. ‘Mary is depressed because she has lost her daughter; depression becomes a noun: Mary has depression. Fear of discrimination presented in both discourses, that there was a hierarchy of socially accepted diseases, and depression is near the bottom, i.e. intolerable, so it is best to keep it secret and talking about it is like ‘coming out of closet’. The fear they have is that “people will treat you like you are mental, you are crazy or something, you are a freak or fucked up”
- According to Mayo Clinic staff (2017: [1-2]), adolescent depression is regarded as a severe mental illness that leads to a constant feeling of unhappiness and loss of interest in social activities. The adolescents thinking, feeling and behaviour is greatly affected by depression, and it can lead to emotional, functional and physical problems. Even though depression can happen at any time in life, it may have different symptoms between an adolescents and adults.
- Adolescents with depression have signs and symptoms, which consist of a change from the adolescents’ earlier feelings and behaviour that can cause considerable sorrow and problems at school or home, in social activities or other areas of life. Symptoms of depression can differ in severity, but changes in an adolescent’s emotions and behaviour may comprise of the examples indicated below.
 - i. Emotional/ psychosocial symptoms include;
 - Sad feeling, which can include crying spells for no obvious cause
 - Hopelessness feeling or emptiness

- Feeling of irritability or annoyed mood
- Feelings of anger or frustration, even over irrelevant or small matters
- Loss of interest or happiness in normal activities
- Lack of interest in, or disagreement with relatives and friends
- Low self confidence
- Worthlessness or guilt feelings
- Inability to stop thinking of past failures or exaggerated self-blame or self-criticism
- Tremendous feeling of rejection or failure, and the need for unnecessary support and assurance.
- Difficulty in thinking, focus, making decisions and recall of things or ideas
- Incomplete sense that life and the future are gloomy and desolate
- Recurrent thoughts of death, dying and suicide.

ii. Behavioural symptoms includes;

- Loss of energy and a feeling or showing a need to rest or sleep
- Inability to sleep or sleeping excessively
- Changes in appetite which can be a decrease in desire for food or weight loss, or increased cravings for food and weight gain
- Substance abuse e.g. alcohol or drugs use
- Feeling of agitation or restlessness-for example, pacing, hand-wringing or an inability to sit still
- Slow in thinking, talking or body movements
- Regular complaints of unexplained body aches and headaches, which may include repeated visits to the school nurse
- Social seclusion or decreased social interactions
- Decline or poor school performance or many absences from school
- Poor personal hygiene or neglected appearance
- Angry eruption, disruptive or risky behaviour, or other acting-out behaviours
- Self-injury for example, cutting, burning, or excessive piercing or tattooing
- Increased time spent alone
- Planning of suicide or suicide attempt (Mayo Clinic staff 2017: [1-2])

iii. Physical Symptoms includes;

- Sleeping too much
- Lack of night sleep
- Feeling of tiredness
- Changes in appetite
- Loss or gain of body weight
- Neglect in personal appearance (Village Behavioural Health, 2018: [6]).

iv. Cognitive symptoms include;

- Challenges with short-term memory
- Difficulty in thinking clearly
- Problem with making decision
- Difficulty in paying attention
- Slow thinking, talking, or movements (Village Behavioural Health 2018: [6])

2.5 PREVALENCE OF DEPRESSION IN ADOLESCENTS

Barlow and Durand (2012:220) stated that estimates on prevalence of mood disorders in children and adolescents differ extensively. Depressive disorders happen irregularly in pre-pubertal children than in adults. However, they increase significantly in adolescence period. Experience of major depressive disorders in adolescents and adults are often the same. The gender ratio for depressive disorders in children is approximately 50:50, but this changes radically in adolescence. Major depressive disorder in adolescents is a female disorder, as it is in adults, with puberty seemingly triggering this sex inequality.

Elliot (2015:150) adds that there is a rise in incidence of depressive disorders in adolescents, explaining further that 1 in 8 adolescents go through from one or another form of depression. A low mood is significantly common during the age of adolescence, with severe depressive symptoms being recorded in 10% of adolescent boys and 40% of adolescent girls. Sorrowfully, up to 15% of adolescents who suffer from with major depression will commit suicide in due course.

Blom, Ho, Connolly, LeWinn, Sacchet, Tymofiyeva, Weng and Yang (2015:358) report that during the period of 1997 and 2007 in Sweden, the number of adolescents

between 16 and 19 years who were given in-patient medical care for anxiety and depression increased by 400%. The prevalence of suicide attempts by young women aged 16-24 years increased by 60% in Sweden during the same period. Moreover, in the United States of America (USA), the second primary cause of death in children age bracket of 12-17 years in 2011 was suicide. The possibility of the onset of major depressive disorder increases roughly during the adolescent years, with a lifetime prevalence of 11.0% and 12-month prevalence of 7.5% for youngsters.

According to the World Health Organisation (WHO), between 10% and 20% of children and adolescents worldwide have the experience of psychiatric illnesses. Half of all psychiatric illnesses commence by the age of 14 years and three-quarters by mid-20s. The South African National Youth at Risk Survey, with its focus on children and adolescents between Grade 8 and 11, emphasised that 24% of the youth studied had experienced feelings of depression, hopelessness and sadness and a further 21% had already attempted suicide at least once (Lifestyle Magazine 2017:3).

Thapar, Collishaw, Pine and Thapar (2012: 1056-1067) also indicate that average 12-months prevalence estimates in mid to late adolescence are generally alike to those seen in adulthood (4-5%), with the cumulative probability of depression increasing from around 5% in early adolescence to as high as 20% by the end of that time. The facade of a strong female preponderance (about 2:1) is one of the strongest epidemiological findings in the prevalence of depression in adolescents after teenage years.

In a current study of depression conducted in Malawi on HIV-infected adolescents done in 2014 by Kim, Mazenga, Yu, Devandra, Nguyen, Ahmed, Kazembe & Sharp (2015: 2), reveal a prevalence rate of 18.9%. Del Vecchio (2018:1) also reports that there is an increase in the rate at which adolescents are experiencing major depressive disorders in the last five years, as reported through the Substance Abuse and Mental Health Services Administrations National Survey on Drug Use and Health. Rates of adolescent depression that had been comparatively stable, at around 8% for over 10 years, began to rise evidently in 2012 and have continued to increase, culminating in the most recent 2015 survey results of 12.5%. This increase is not even as girls are faring bad than boys, with Latina girls showing the highest rates of depression. Boys' rates have fluctuated from 4.3% to 5.7%, where girls have risen from 11.9% in 2007 to 17.3% in 2014 in the last decade.

Chinawa, Manyike, Obu, Aronu, Odotola, and Chinawa (2015:48) assert that one in five adolescents have experienced depression at some point in their life. In primary care settings, it was observed that the rates of depression are as high as 28% for adolescents. Adolescents who experience depression at an early age often fight with depression all through their life.

2.6 FACTORS CONTRIBUTING TO ADOLESCENT DEPRESSION

Nalin (2018: [1]) indicates that period of adolescence is a hard stage of life. Many facets of life weigh on an adolescent, and with the right amount of weight, it can bring an adolescent down enough to feel depressed. In fact, there seems to be a few common causes or triggers that can contribute to depression in an adolescent. With enough of the following factors coming together, life can become unbelievably challenging for an adolescent, contributing to an experience of depression. The following are the common contributing factors:

2.6.1 Hormonal dysregulation

De Souza Duarte, De Almeida Corrêa, Assunção, et al. (2017:69) explain that changes in hormones can cause considerable emotional changes and vice versa. Owing to changes in the central nervous system, action of hormones on specific receptors or by metabolic changes, therefore, the endocrine disorders become one of the probable causes of depression. Corticotrophin hormone, cortisol, oestrogen, progesterone and thyroid hormones were recognised as the main hormones that are associated to depression. These hormones are necessary for the proper functioning of the metabolism, hence, it has been observed that hormonal changes may lead to the development of depression as well as exacerbate it or even hinder the treatment of patients who have the disorder already.

2.6.2 Gender differences

De Souza Duarte et al, (2017:71) believe that a result of radical hormonal changes in puberty, in each menstrual cycle, in the post-partum period, and in menopause in females, female gender has a greater tendency to develop depression. At the

commencement of puberty, the adolescent female starts the production of gonadal hormones, acquiring the so-called “periodicity”. This fact, coupled with the beginning of abrupt hormonal changes, seems to contribute to the development of mood disorders. These hormones control the psychic state of the adolescent by the modulation of the serotonergic system.

They further state that besides the usual hormonal changes of puberty, there are psychosocial stresses that help to increase the tendency of the depressive disorder. Changes in their body happen at about the same time that is seen as the high rate of depression, indicative of a significant possibility of the link between the altered body image, physical and hormonal changes and the onset of depression in puberty. Mark, Anna, Dan, et al. (2009:367) further state that the incidence of major depression was 9.7% for lifetime. The incidence was considerably higher among females than among males. The incidence was also higher among those with a low educational level.

Mennen, Negriff, Schneiderman and Trickett (2018:242) explain sex of the adolescent was observed to be a determinant of the incidence of both internalising and externalising behaviours in children and adolescents. Adolescent girls are at bigger risk of developing depression compared with boys. On the contrary, boys are more diagnosed with behavioural disorder throughout childhood.

2.6.3 Homosexuality

Adolescence period is the time when most individuals ascertain their sexual orientation; that is referred as being heterosexual, homosexual or bi-sexual. The uncertainty and anxiety that frequently come with the development of a heterosexual orientation in adolescence is mainly intensified for adolescents who have chosen to be homosexual. Fear of rejection, resentment and discrimination that are usually aimed at homosexuals called homophobia- prevent them from disclosing their orientation. The result is that homosexual adolescents mostly feel that they have nowhere to turn. They have no other choice other than to wear a “mask of heterosexuality” by, for example, dating the opposite sex and even telling and laughing at jokes about homosexuals. This artificial behaviour is made easier by the fact. Contrary to popular belief, the majority of male and female homosexuals cannot be recognised by their physical appearance. It is therefore understandable that homosexual youth have a

much higher rate of depression and are up to four times more expected to attempt suicide (Louw & Louw 2014:321).

2.6.4 Adolescent pregnancy

In a study conducted in South Africa by Barhafumwa, Dietrich, Closson, et al. (2016:269), there is a relationship between having been pregnant (females) or impregnating someone (males) and depression. Adolescent pregnancy was established to be high among female adolescent aged 18-24 years, where 19.2% had a pregnancy, while 5.8% of male youth had made a girl pregnant when they were between the ages of 12-19 years. The complication of adolescent pregnancy together with the potential for social seclusion from relations and community may add to the risk for depression among the adolescents.

2.6.5 Food insecurity (socioeconomic class)

Socioeconomic class was observed to be extensively associated with depression in adolescents. In the study conducted in IdoEkiti, South West Nigeria, students with a lower socioeconomic status were six times more prone to be depressed than students from the upper socioeconomic status. This has also been observed in other similar studies conducted in other parts of the world where they found that poverty and difficulties in meeting daily requirements may provoke an adolescent to judge himself with others and this circumstances increase an adolescent's inclination to develop depression (Oderinde, Dada, Ogun, et al., 2018:199).

Barhafumwa et al, (2016:269), argue that there is an association between insecurity of food and depression among young South Africans with poor social and economic support. The relationship between food insecurity and depression may, in part be owing to physical effects linked with food insecurity which includes a reduction in frequency of meal, lack of access to nutritionally beneficial foods as well as the emotional toll such as desperation and misery potentially related with a lack of control over food access. Consequently, adolescents, particularly those who may find themselves as parents at a youthful age, may engage in behaviours, which increase their risk of HIV, such as transactional sex as a way to supplement access to food and other requirements in the family.

Chinawa et al. (2015:50) reveal that there is a commonly high incidence of depression in the middle socio-economic class, followed by high socio-economic class.

This finding differs from other research studies where parents from low socio-economic class are likely to have depressed adolescents.

2.6.6 Poor self-esteem and self-efficacy

Increase in the prevalence of depression and other psychiatric health co-morbidities among adolescents and young adults (AYA) have been negatively associated with poor self-esteem and self-efficacy. Both of which are closely related to use of condom and healthier relationships, including positive sexual relationships and positive sexual communication (Barhafumwa et al., 2016:264).

2.6.7 Child abuse

All abuses remain embedded as felt experiences in the psyche of the abused. Children who have been abused are psychologically impaired, and manifestations of the abuse take on different forms. Some occur early on, in childhood or adolescence; others develop more slowly, appearing in adulthood. Some psychological responses such as depression, learning difficulties and chronic bed-wetting are seen (Pretorius, Mbokazi, Hlaise & Jacklin 2012:19).

2.6.8 Bullying

Boyes and Cluver (2014:847) define bullying as a repeated acts of violent actions done deliberately to cause an injury, and it is typically characterised by an inequality in power between the executor and the casualty. Bullying victimisation in South Africa is common, with data from a nationally representative sample of high school students putting prevalence rates at 61%. In both the developed world and South Africa, experiences of bullying victimisation peak in early teenage years, a stage during which children spend increasing amount of time with their age mates and peer relationships and approval is highly valued.

Kim et al., (2015:9) explain that bullying has been recognised as an independent risk factors for depression in high-income countries and more recently is rising as a risk factor in settings with a limited resource. In their study conducted in Malawi, 11% of young adolescents are reported being bullied for taking ART (antiretroviral therapy) medications.

Kim, Park, Park, Yi, Ahn et al., (2018:5) report that adolescents who are different from their peers in terms of behaviour or appearance are more liable to be bullied. For example, adolescents who survived cancer or other chronic illnesses, who may experience changes in look or body image, can have difficulties with socialisation.

2.6.9 Increased exposure and use of social media

Researchers propose that increased exposure and use of social media may be a causal factor of depression (Levenson, Shensa, Sidani, et al. 2016:36). While the number of youth using the Internet has not changed in the past decade, the way they use the social media has changed. Smart phones are the fashion accessory of choice with 73% of adolescents using one, and 94% going online daily allowing for 24/7 access to social media. They also found that adolescents and young adults who made use of electronic media in bed before sleeping had higher rates of depressive symptoms. Primack from the University of Pittsburgh's Centre for Research on Media Technology and Health found that social media provide no protection at any level when it comes to depression. The number of "friends" and "likes" on Facebook has no outcome on happiness, and in fact, with high use of social media, researchers have found increased reports of depression. With the introduction and increased use of social media, and with changes in society and family structures, researchers also theorise that these increased rates of depression may be attached with exclusion of protective experiences such as spending time with peers and members of the family (Lin, Sidani, Shensa, et al., 2016: 323).

2.6.10 Psycho-social family factors

Parker and Roy (2001 cited in Alan and Christine 2009:21) stated that an unpleasant family environment has an effect on increasing the possibility of depression, suicidal ideation and suicidal attempts in adolescence. They further noted that depressed

adolescents observe their families as more conflictual, rejecting, non-supporting and violent (but, the conflict may be owing to having a depressed adolescent in the family).

Major parental contributions include behaviours and attitudes that enhance insecurity in the child, and promote self-esteem. These also include dealing with chaotic family environments, larger family size, parental divorce, lack of perceived social support, sexual abuse, older sibling with drugs or alcohol dependency and parents unhelpful modelling may leave children bereft of skills to adjust negative effects.

Oderinde et al (2018:199) explain that adolescents from polygamous families were approximately six times more likely to have depression than those from monogamous family and this was notably and independently linked with depression. This might be owing to parents in polygamous family settings not able to carry out the needs of their growing adolescents because of more numbers of children, which were born in the family. Such needs would include food, clothing, education, love, care, emotional support, parental support, and financial needs.

They further explained that divorce is a contributing factor to depression with the evidence that adolescents coming from separated/divorced families are predisposed to be more depressed than their same aged peer from intact families is. This could be, because such adolescents from divorced home tend to have less close relationship with their parents.

2.6.11 Social factors

Modern values in the western social upbringing may contribute to depression in an adolescent. Societal values presently put emphasis on a 'self-focus' of rights and freedoms, ignoring or minimising 'other-directedness' and obligations to society. In addition, emphasis on non-responsibility for individual behaviours contributes to the individual viewing him or herself as not at either fault or a victim, as responsibility lies with others. Moreover, the support of instant gratification (whether effected by sex, drugs and mobile phone) has resulted in adolescents failing to learn to deal with frustration or to 'do without' and therefore having less self-reliance and resilience. In addition, the decrease in the importance of the family unit and an increase in structural family problems (e.g. single mothers, an increase in divorce) continue to be nominated as contributing variables. Such changes are also implicated in the increase in drug

taking by adolescents, which itself may contribute directly and repeatedly to adolescent depression (Alan & Christine 2009:22)

2.6.12 Behavioural and emotional factors

Adolescents that are likely to develop depression do not have emotional resilience. Internalising for example, being reserved, shy, anxious, dependent, a worrier is often linked with preoccupation centering on unpopularity, insecurity, having low self-esteem, and increases the risk of depression. Externalising tends to increase the risk of drug abuse and conduct disorders. Aggression has been reported as a risk factor to depression and drug abuse (Alan & Christine 2009:22).

2.6.13 Negative cognitive style

Negative cognitive style components include lack of self-esteem, self-criticism, desperation, negative style, perceived poor control/over-negative events and negative attributions. Depressive episodes lead to more depressive episodes because of a bigger opportunity of investing experiences with negative elements (Alan & Christine 2009:22).

2.6.14 Trauma (rape)

Childhood sexual abuse also referred to as rape is defined as any forced sexual activity with a child. This can include oral, vaginal, and/or anal penetration with a penis, digits, or foreign objects, and forced sexual touching (Chang, Kaczurkin, McLean & Foa, and 2017:319)

Exposure to trauma in form of sexual assault (rape) and its severity (verbal threat during the time of rape, being punched/kicked and choked, threatened with weapon and the use of weapon) will increase the danger of depression and posttraumatic stress disorder (Mballo, Zhang & Ntuli 2017:302).

2.6.15 Co-morbidity

Cummings, Caporino and Kendall (2014:818) define co-morbidity as having two or more distinct, coexisting diseases in one person at the same time. Research studies have shown that adolescents living with HIV are at high possibility of developing depression, which also have an effect on their adherence to medication.

In a study done in Harare, Zimbabwe, by Willis, Mavhu, Wogrin, et al., (2018:1) on HIV positive adolescents between the age of 15-19 years on their experience and manifestation of depression, participants ascribed their experiences of depression to their relationships and communications with important people in their lives, mainly family members and peer groups. A sense of feeling different from others was common among them, both owing to their HIV status and the effect HIV has had on their life situation. They described a longing to be important or to matter to the people in their lives. A sense of isolation and rejection was seen among them, with grief and loss, including indefinite and predictable loss. Participants' idiomatic expression of misery included 'thinking deeply' ('kufungisisa'), 'pain', darkness, 'stress' or a lack of hope and uncertainty for the future. Suicidal thought was described, including deliberate suicide by not adhering to their medications.

Peltzer, Szrek, Ramlagan, et al., (2015:41) further assert that HIV's neurotropic effect may directly cause psychiatric health co-morbidities; psychological modification after one becomes sensitive of one's HIV status may have a stronger effect.

Peterson, Togun, Klis, Menten, et al., (2012:589) explains that depression in sub-Saharan Africa has been linked with low CD4 cell count, inability to afford antiretroviral therapy and not having an independent income. They further stated that depression is also a recognised side effect of the antiretroviral medicine called Efavirenz (EFV).

2.6.16 Loss and grief

Willis et al (2018:6) accentuate that the majority of the depressed adolescents had lost one or both parents and shown signs of deep and unresolved grief. The death of their parent/parents was described as a contributing factor to their depression and voiced a desire to have known them through their words, paintings, body language and emotions. Grief was frequently aggravated where depressed adolescents were living in unaccommodating house or where a caring, caregiver relationship was absent.

Oderinde et al (2018:199) report that parental death was also observed to be extensively related with adolescent depression in the study carried out in IdoEkiti, South West Nigeria. They further stated that adolescents whose parents had died were more likely to be depressed than those whose parents are still alive.

The cause for this observation is clear, because such adolescents are usually deprived of safe and affectionate relationships with their parents, which are defensive elements that reduce the rate of emotional and mental disorders among youngsters.

2.6.17 Chemical imbalance in the brain (physical factor)

Elliot (2015:154) proposes that the chemistry can change, becoming imbalanced, leading to the production of excessive or insufficient of certain chemicals in the brain, which results in depression. There are three specific neurotransmitters, which have been isolated as elements involved in depression, namely: serotonin, norepinephrine and dopamine. The amount released and the amount present at any given time and the amount of neurotransmitters taken back into the sending cells can lead to the imbalance in brain chemistry. Serotonin seems to boost the overall arousal of the brain and the body and results in better mood. Lower levels of serotonin activity have been observed to produce aggression, suicide, overeating, and excessive sexual behaviour.

Burns and Roos (2016:464) suggest that decrease in neurotransmission of serotonin is considered to lead to poor impulse control, depressed mood, irritable feeling and increased craving for carbohydrate.

Nemade, Reiss and Dombeck (2019:2) also added a linkage exist between stress, depression and norepinephrine. Norepinephrines assist our bodies in recognising and responding well to situations that are demanding. Researchers suggested that people who are susceptible to depression might possibly have a norepinephrinergic system that does not handle the effects of stress very well. The dopamine plays significant role in regulating our drive to seek out rewards, as well as our ability to get a sense of enjoyment. Low dopamine levels may in part describe why depressed people do not get the same sense of pleasure out of activities.

2.6.18 Social anxiety or pressure from friends

One website recently had adolescents write in what their most stressful experience is for them, and overwhelmingly, the answer was feeling like they did not fit in or feeling as though they somehow were not cool enough to be accepted by others example; being gay, lesbian, bisexual or transgender in an environment that does not support them. The social anxiety and the peer pressure from friends created the most harm in their lives. This can most certainly contribute to depression in an adolescent (Nalin, 2018: [1]).

2.6.19 Relationships concerns

Many adolescents enjoy the experience of relationships while they are studying at school. Nonetheless, when a long-term relationship they enjoy ends, it can feel distressing for an adolescent. The loss of relationship can cause all sorts of feelings and views that might consecutively lead to depression (Nalin 2018: [2]).

2.6.20 Academic stress

Depending on the school an adolescent attends, the demands to get excellent grades and finish homework can be enormous. Actually, some movies, like Dead Poets Society, have demonstrated the considerable level of stress that adolescents have to bear. Depression can begin to set in for an adolescent with an adequate amount of stress from classes, grades, and getting into college. If parents, guardians, expect you and teachers to do extremely well and you are not, depression can easily develop (Nalin 2018: [2]).

Harsha (2017:8) further asserts that academic stress occurs with expected thoughts of a failure in academic performances. This tags along with the awareness of the possibility of academic failures or poor grades. The thoughts and awareness are

subsuming which leads towards a mental distress. Situations and events, which take place at schools such as tests, grades, studying, play a significant role for stress.

Stress exists from the alteration in an individual's thinking and lifestyle now. Stress is understood to be caused by the different problems at school, financial, family and problems in their surroundings. Adolescents also pass through stress because they are occasionally trapped between making their own decisions, which is to follow rules and orders or to be free and find out the world as if they should (Harsha, 2017:7).

2.6.21 Low activity level

It has been observed that low/lack of good levels of physical activity can lead to a low mood. Physical activity encourages the brain to produce "feel-good" chemicals, which enhances the mood. Therefore, even mild to moderate exercise can make a huge difference in an adolescents' psychological wellbeing (Meghan, 2013:2).

2.6.22 Poly-victimisation

Poly-victimisation (PV), or experience to violence across many contexts, leads to considerable short- and long-term illness and even death among the affected adolescents.

This multiple exposure to violence occurs in the family and society, from close partners and peers. Internationally, the rate of experience to PV in adolescents differs significantly (Kamndaya, Pisa, Chersich, et al., 2017:42).

Kamndaya et al (2017:42) further explain that PV victims are at a significantly high danger for adverse psychological health, as well as emotional, behavioural and developmental problems compared with those exposed to violence in a particular circumstance. Among adolescent girls, PV was associated with suicidal thoughts, posttraumatic stress, and low mood while among adolescents' boys, it was only hopelessness.

2.6.23 Familial and genetic factors

Children of parents who have depression have three to four times higher rates of developing depression compared with children of healthy parents. This risk is contributed by both genes and hereditary factors, which play a part. The majority of the twin studies confirmed that depression becomes increasingly inherited from infancy to late youthful years. The heritability rates during late adolescence are like those seen in adult life. Hereditary liability for depression manifests in many ways and at many times (Thapar et al., 2012:1059).

2.6.24 Obesity

Childhood or adolescent obesity has turned out to be one of the most severe public health challenges of the 21st century with extensive and lasting adverse consequences for health outcomes. More than 42 million children under five years internationally are estimated to be overweight (OW) or obese (OB), and if present trends persist, then an approximately 70 million of them will be OW or OB by 2025. Increase in weight gained during childhood and adolescence may be linked to despair, negative mood states and poor self-esteem (Rankin, Mathews, Cobley, et al., 2016:125-126)

Chinawa et al (2015:50) also identified a practical relationship between depression and weight gain among adolescents. Adolescents (especially those who are seriously depressed) agreed that they are putting on weight. It is puzzling, if weight gain leads to depression or vice versa.

Although, evidence abound to show that depression leads to weight gain, for instance depression releases some stress hormone, cortisol which stimulates and promotes storage of fat, especially in the abdominal area. The hormone also leads to depressed affect, which in turn then leads to excess weight gain.

2.6.25 Loneliness

Loneliness typically includes a negative response to being isolated. The people who experience loneliness are not always without friends as they may have many people around them. They feel emotionally disconnected from their loved ones and other

people around them. It can also be seen as a secondary consequences of certain psychiatric diagnoses e.g. depression; anxiety etc. Numerous schoolchildren express an increased sense of loneliness. Many cases reveal that owing to their generalised anxiety, they automatically believe that no one will be their friend so they tend to shy away from actively trying to make friends. (Kooverjee-Kathard, 2018:25).

2.6.26 Physical disability

Xuchu (2016: 2) argues that physical disability is viewed to be associated to depressive symptoms. Disable people has the incident of manifold risk factors for depressive symptoms, including stereotypic social and personal attitude; abuse; loss of roles; and stressors due to poverty, environmental barriers, and/ or lack of access to appropriate healthcare. Considerable evidence has shown that people living with physical disabilities are at least three times more probable to experience depression compared to the universal population.

2.6.27 Cultural factors

Burns and Roos (2016:497) explain that depressed adolescents have poor school performances because of cultural influences in the society. Chacon (2010:1) asserts that depression is a mental disorder that is prevalent in all cultures and ethnic groups. The feeling of psychological distress is affected by culture and ethnicity. It has also been reported that those individuals who recognize themselves with an ethnic minority that has been disadvantaged have poorer psychological health and premature mortality when compared to those who with the dominant Whites.

Depressive symptoms that have been noticed in these groups include unhappiness, lack of enjoyment, inability to concentrate, feeling of worthlessness and low energy level. Some of the factors that have shown too contributed to higher risks for depressive symptoms included immigration status, employment, marital status, age, level of education, and earnings.

Ojua, Ishor and Ndom (2013:181) underscore that mental illness is ascribed to a variety of contributing factors in many parts of Nigeria. However, all seem to describe

mental illness as a suffering on man from the spirit world. In a few parts of the country, individuals having a mental illness are seen as being the architect of their bad luck. They are seen as being serving the penalty of one evil or the others they have committed in the time past. As such, when someone is mentally ill, it is unusual for his people to seek conventional medical care. They would rather consult the herbalist since the cause of the problem for them certainly is from the spirit world or inflicted by the enemies.

2.6.28 Stress

Harsha (2017:5-7) considers stress as a negative process that accounts emotional, cognitive, behavioural and physiological functioning connected to adjustment with stressors. Stressors are certain circumstances that disturb or threaten an individual's daily functioning to work and function properly to make adjustments. Stress is frequently thought as the process between an individual and environment. Moreover, stress is a process in which demands of the environment exceeds the adaptive ability of a person, leading in mental and biological changes that may put a person at risk for illness. Stress is defined as burdens, pressures, anxieties and worries. Everyone has had it or has in one point in their high school life. The students today are facing with new educational challenges calling for better effort from students. In addition, there are heavy strains made by the community on students to execute different roles, many of which are undefined, conflicting and unattainable in the present socio-cultural, economic and bureaucratic contexts of our society, causing intense pressure on students mostly high school students.

2.6.29 Poor early attachment

Attachment is a loving tie that binds a person to their companion. When children are born, they are at the compassion of their caregivers and are very dependent on them to meet up all their needs. This reliance makes a child to form loving tie to their caregivers, especially, the mother. When a child's needs are met continuously, they will form a safe attachment to their caregiver. However, even if those needs are minimally met, the child will form an attachment, but this often leads to a less secure

type of attachment. Safe relationships that are recognised with caregivers will support regulation of emotions and set up the base for social and emotional development throughout the child's life (Newman, 2017:3).

Poor early or insecure attachments may lead to possibility of negative behavioural patterns, as early as pre-school age. Internalised problems; such as, hopelessness, worry, and psychopathology are also the result of insecure attachments during early childhood. These issues may result to peer isolation, social rejection, constant anxiety, long-lasting despair, poor self-esteem, and problems adjusting as they go through school age and youth years (Newman, 2017:6).

2.6.30 Post-Traumatic Stress Disorder (PTSD)

According to Burns and Roos (2016:516), post-traumatic stress disorder (PTSD) has characteristics which include re-experiencing symptoms, painful recollections, constant avoidance and hyper-arousal in response to exposure to one or more painful events. Many adolescents are exposed to traumatic such as physical or sexual abuse, domestic violence, being in war-torn areas, natural and other disasters or may experience severe medical illnesses directly (witnessed) or indirectly (un-witnessed).

2.6.31 Mental illness

Burns and Roos (2016:512) report that two-thirds of children and adolescents with depression have co-morbid psychiatric conditions. Common co-morbid disorders are anxiety disorder, attention-deficit hyperactivity disorder (ADHD), disruptive behaviour disorder, obsessive-compulsive disorder, eating disorders or substance-related disorder.

2.6.32 Occult rituals and involvement

Zapo (2018:1) notes that the most of the skilled therapists refuse to associate depression with any form of occult, magical, or witchcraft contribution declaring that many types of depression result from a chemical imbalance. Nevertheless, some specialists noted that usually a combination of events and a variety of lasting or personal factors rather than one immediate issue might activate a short period of

depression or anxiety. De Gruyter (2017:1) asserts that as any mental disorder goes, it will be medical practitioners and therapists who administer treatments upon tracing the root cause of the problem.

Šram (2017:92) explains that involvement in occult world has often been observed to be the core cause of mental and emotional problems. There are numerous examples recognised in the psychic community where meddling in the occult can be harmful to one's spiritual, mental, and physical wellbeing. The mental health care practitioners identify the unpleasant consequences of the occult activities upon the mind. A belief that evil spirits can cause psychological disorders has been seen in various cultures and religions.

The findings of the research conducted by Šram (2017:102) confirmed that the satanic/occult involvement could be the origin of psychological and psychiatric problems. Mysterious forces can mentally oppress those who are subjected to occultism, and one can experience depression and antisocial disorders. In the beginning, the person usually does not recognize the influence of demon; recognition comes later, when the control is well established.

2.7 EFFECTS OF DEPRESSION

Adolescent major depressive disorder has shown to be a significant concern of the public health because of its prevalence, early onset and effect on the individual, family and community (Blom et al 2015:358). Considering the chronicity and seriousness of depression, the extensive impact is not only on the affected individuals and their families but also on the community (Barlow & Durand 2012:220)

2.7.1 Individual

2.7.1.1 *Suicide*

Depression is the main cause of suicidal behaviour in children and adolescents. The symptoms of depression (e.g. misery, helplessness and despair) offer a breeding ground for this tragic act (Louw & Louw 2014:419). Pretorius et al (2012:50) also indicate that they tend to entertain the idea of harming themselves because of their

feeling of hopelessness. Pietrangelo and Cherney (2017:4) further explain that they sometimes find themselves preoccupied with thoughts of death or hurting themselves.

2.7.1.2 Self-Harm

Depressed adolescents may engage in self-injurious behaviours such as cutting, burning or various kinds of self-mutilation. They do this in order to express the pains of depression and to allow them to feel they have power over something in their life (Alia 2017:3).

2.7.1.3 Poor personal hygiene

Adolescents with depression are often poorly groomed because of a lack of energy that prevents them from maintaining an acceptable outward appearance and personal hygiene (Pretorius et al., 2012:50).

2.7.1.4 Metabolic syndrome (MetS)

Metabolic syndrome (MetS) is defined as a group of metabolic risk factors that come together in a particular individual. These metabolic factors include insulin resistance, hypertension, cholesterol dysfunction, and high risk for blood clotting. Individuals that are affected are most often obese or over-weight (Stoppler 2018:1). There is a bidirectional relationship between the metabolic syndrome and psychiatric illness. Depression and anxiety are common among individuals with MetS, and, in comparison with the general population. MetS is two to five times more common among patients with severe long-term psychiatric illnesses. It is estimated to affect up to almost 50% of patients with depressive disorders.

The cause of MetS in patients with chronic psychiatric disorders is multi-factorial, including genetic predisposition, sedentary lifestyle, smoking, excessive alcohol consumption, unhealthy diet, hormonal imbalances, involving leptin and cortisol, and side effects of psychiatric medications (Naidu 2017:3).

2.7.1.5 *Loss of disability-adjusted life years*

Disability-adjusted life years (DALY) is a relatively new index that combines the years lived with a disability (YLD) weighted according to severity of the outcome and the years of life lost (YLL) owing to premature death. The DALY therefore adds together the extent of premature mortality and the disability from a disease or injury, using time lost as a measure of similarity. This yields a measure of disease burden reflecting more than just mortality (Joubert & Ehrlich 2007:205).

Depression is the primary cause of years lived with disability and has been anticipated to become the second most burden-some disease by 2020 (Aluh, Anyachebelu, Anosike & Anizoba 2018:1). This is accounting for 4.4% of the overall disability-adjusted life-years (Haddad & Gunn 2011:41). Depressive and anxiety disorders and self-harm (including suicide) are three of the top five causes of loss of disability-adjusted life years in 15-19 years old. A quarter of New Zealand's young people are affected by depression, and over half involve themselves in hazardous drinking by the age of 18 (Goodyear-Smith, Martel, Darragh, et al.,2017:2).

2.7.1.6 *Poor school performance*

School performance of adolescents diagnosed of depression often declines as they move through the school environment owing to academic demands and limited ability (Elliot 2015:183).

2.7.1.7 *Insomnia*

Disturbance of sleep is common in a range of psychiatric illnesses, including depression and anxiety. Depression is probably the most common psychiatric cause of sleep disturbance, and should be regarded as a strong differential diagnostic possibility in any adolescent presenting with a recent onset of insomnia.

Adolescents with depression may complain of difficulty falling asleep. However, multiple awakening, and non-restorative sleep are typical (Robertson, Allwood & Gagiano 2015:247).

2.7.1.8 *Low self esteem*

A feeling of worthlessness is one of the major symptoms of depression. Hence, this feeling will cause an adolescents' self-esteem to reduce. They will feel inferior about things such as their looks, their capacities and their worthiness. In addition, if depression persuades an adolescent to eat more, they may start gaining weight, which can also have negative effects on their self-esteem (Alia 2017: 3).

2.7.1.9 *Substance abuse*

Alia (2017:2) notes that adolescents with depression may abuse substances, such as drugs and alcohol as a way to reduce their symptoms. Alia further states that substance abuse will only make the symptoms of depression and the negative effects worse. Wu, Hoven, Okezie, Fuller, & Cohen (2008: 63) added that alcohol abuse/dependence was associated with elevated rates of depression in youths.

2.7.1.10 *Internet addiction*

Some depressed adolescents may detach themselves and begin spending time on the Internet. Internet may be used excessively as a way to run away from their personal problems, which at the same time increases their isolation hence making them more depressed (Alia, 2017:2).

2.7.1.11 *Medical complications*

Blom et al., (2015:358) assert that adolescent major depressive disorder is also linked with medical problems later on in life. These include cardiovascular disease, stroke, osteoporosis and diabetes mellitus. They can also develop other psychiatric disorders, most often with generalised anxiety disorder, behavioural disorders and substance abuse. Alia (2017: [2]) also stated that researchers have established that depression can predispose one to have obesity, heart disease, diabetes and osteoporosis.

2.7.2 Family

2.7.2.1 *Eating disorders*

Adolescents who have eating disorders, such as anorexia, bulimia, binge eating and various forms of dieting behaviours may be battling with depression. Eating disorders confer depressed adolescents some form of being in charge of their life. They cannot control how they feel when they are depressed, but can have control over food and their food intake (Alia 2017:2).

2.7.2.2 *Difficulties with family conflicts and other relationships*

A depressed adolescent cannot be able to manage conflicts in his/her family and can lead to having problems getting along with other family members (Village Behavioural Health, 2018:7).

2.7.2.3 *Social isolation (stigma)*

This is caused by a low self-esteem in a depressed adolescent who prefers to be on his or her own and refrain from communicating with others (Village Behavioural Health 2018:7).

2.7.3 Community

2.7.3.1 *Juvenile justice system involvement*

This is because of indulging in a reckless behaviour or attitude that could lead to being detained by the legal system (Mayo Clinic, 2017:5).

2.7.3.2 *Unemployment*

Thapar et al. (2012:1058) explain that adolescents who did not attain any educational training because of their depressive disorders may not be employed because of their lack of skills.

2.7.3.3 *Financial cost to the society*

This involves the financial cost to treat the depressed adolescents including the psychiatric services, youth justice services, alcohol and misuse services in addition to joblessness and other state required services. It is not easy to prevent and manage depression as it requires an integrated multidisciplinary effort by healthcare providers at different levels to be involved in the assessment, prevention and management of affected individuals, and also to provide social, economic and psycho-emotional support to the affected families (Ogundele, 2018:21).

2.7.3.4 *Risk of future negative outcomes*

Blom et al. (2015:358) explain that adolescent major depressive disorder frequently has a periodic course that persists into adulthood and afflicted adolescents are at a high risk of future negative outcomes. They include the loss of social, cognitive and interpersonal skills; and consequently poor school performance, use of increased treatment and psychiatric disorders in future.

2.7.3.5 *School problem (Academic failure)*

Alia (2017:2) report that depression in adolescents can have an effect on their ability to concentrate and sustain their levels of energy. This may cause them to have reduced attendance at schools, a decline in academic performance in a formerly good student, and an increase in getting into trouble with school personnel.

2.7.3.6 *Violence*

Depression can fuel violence in some adolescents as a result of an extremely strong dislike for themselves and a suicidal thought can erupt into brutal and homicidal rage in a community (Alia 2017:3).

2.7.3.7 *Reckless behaviours*

Depression adolescents may be involved in careless and irresponsible behaviours that could be dangerous to their life. Such behaviours include drinking while driving, driving at very high speeds, using drugs and alcohol, involving themselves in high risk sexual acts and hanging out with dangerous people (ibid).

2.7.3.8 *Involvement with the juvenile justice system*

This is because of indulging in a reckless behaviour or attitude that could lead to being detained by the legal system (Mayo Clinic 2017:5).

2.8 SUMMARY

Depression has become a major problem globally. Kim et al (2015: 264) further explained that depression is a main contributor to the global burden of disease and the number cause of illness and disability amongst the individuals in adolescence period. Baron, Davies and Lund (2017:2) added that depression has clear economic implications. In this chapter, depression, adolescence, adolescent depression, prevalence of depression in South Africa and globally, contributing factors of depression in adolescents and finally the effects of depression in the individual, family and community were explained.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

This chapter focuses on the discussion of the research methods and designs that were used in the study. Maree (2016: 51) describes methodology as the bridge that brings our philosophical standpoint and method together. It includes the procedures by which the researcher goes about their work of collecting data, analysing, describing, and explaining phenomena. This chapter will discuss the research design, sampling, data collection and analysis, trustworthiness and ethical principles used in the study.

3.2 RESEARCH DESIGN

According to Welman, et al. (2012:52), a research design is the plan according to which we obtain research participants (subjects) and collect information from them. In it, what is going to be done with participants are described, with a view to reach a conclusion about the research problem. Maree (2016:72) asserts that it is a plan or strategy that moves from the underlying philosophical assumptions to specifying the selection of the study participants, the data-gathering methods to be used and the data analysis to be done.

In the current study, the researcher used a qualitative descriptive study in exploring the factors that contribute to depression in adolescents aged between 11-19 years admitted in a psychiatric unit.

3.2.1 Qualitative research

The 'qualitative research approach' refers to a broad range of research designs and methods used to study phenomena. As the name implies, qualitative research methods focus on aspects of meaning, experience and understanding, and they study human experience from the viewpoint of the research participants in the context in which the action takes place. This is known as an 'emic perspective' or 'insider's view'. The focus is more on the process, and less on the product.

Quantitative research is often inductive in nature and generates further questions and hypotheses (Brink, Van der Walt & Van Rensburg, 2018:104). On the contrary, the qualitative approach is rooted in the philosophy of empiricism, which follows an open, flexible and unstructured approach to enquiry. It aims to explore diversity rather than quantify. Moreover, quantitative research emphasises the description and expression of feelings, perceptions and experiences rather than their measurement; and communicates findings in a descriptive and narrative rather analytical manner, placing no or less emphasis on generalisations (Kumar 2014:14). In this study, qualitative descriptive research was used.

3.2.1.1 *Descriptive qualitative approach*

A descriptive qualitative approach focuses on description, rather than examining relationships or associations. It systematically endeavours to describe a situation, problem, phenomenon, service, or programme, provides information on the living conditions of a community, or describes attitudes towards an issue (Kumar, 2014:369).

The required information is generated through a series of questions, which are not predetermined and pre-worded. The recording of information is in descriptive format and the main mode of analysis is content analysis to identify the main themes. The most common method of data collection is through oral histories, in-depth interviews, narratives and participant (Kumar, 2014: 198).

A qualitative descriptive study was conducted in this study. It helps to understand, explain, explore, discover and simplify situations, feelings, perceptions, attitudes, values, beliefs and experiences of a group of people (Kumar 2014:132).

3.2.1.1.1 *Characteristics of descriptive qualitative approach*

The main features of a descriptive qualitative approach are that it relies on linguistic (words) rather than numerical data, and employs meaning-based rather than statistical forms of data analysis. All qualitative research is naturalistic, that is, it focuses on natural settings where interaction occurs, in other words, viewing social life in terms of processes that occur rather than static terms. It seeks answers to questions by examining various social settings and the individuals who inhabit these settings (Maree, 2016:53)

One of the most distinguishing features of qualitative research is the adherence to the concept of respondent concordance, whereby the researcher makes every effort to seek agreement of the respondents with his/her interpretation, presentation of the situations, experiences, perceptions and conclusions (Kumar, 2014:133).

The researcher comprehends the advantages and disadvantages of the descriptive qualitative study as shown below:

3.2.1.1.2 *Advantages of descriptive qualitative study*

Since qualitative research is conducted within people's contexts, it can produce results that directly represent how people feel. During this process, the researcher will also get a closer feeling of the general social functioning of the person or the community.

The results obtained are often more accessible than questionnaires research, as they are descriptions of real situations rather than statistical measures or diagrams, which are often beyond readers' experience.

Qualitative methods can be useful for the creation of new ideas in new areas of research. They can also supply information for other studies. If new information appears during the research process, there is a space within the research structure to explore it.

A common research problem is that respondents may produce responses that they feel are socially appropriate rather than what they genuinely believe. Their responses may also seek to hide behaviours that they believe may be negatively judged. In qualitative research, a skilled researcher will be able to use greater flexibility of the qualitative method to get around these problems by developing a relationship with the respondent in the fieldwork situation and by using probes and picking up non-verbal cues (Joubert & Ehrlich 2007:325-326).

3.2.1.1.3 *Disadvantages of descriptive qualitative study*

It includes; the researcher subjectivity and bias which can be a severe challenge in the analysis of the information.

In addition, the process of transcribing and analysing data can be time consuming and costly.

It may not be easy to generalise the conclusion owing to the small sample size and non-random sampling technique that is usually used (Joubert & Ehrlich 2007:326).

They are not as structured and sequential in their operationalization as in quantitative research (Kumar 2014: 133).

A qualitative descriptive approach was used in this current study because it is most appropriate study design to explore the factors contributing to depression in adolescents admitted in a psychiatric unit.

3.3 POPULATION OF THE STUDY

According to Brink et al (2018:116), it is defined as the total group of persons or objects that is of interest to the researcher, and which meet the criteria they are interested in

studying. Polit & Beck (2012:275) accentuate that the study population can be differentiated into accessible population, which is the aggregate of cases that conform to designated criteria and are accessible for a study. The target population is the aggregate of cases about which the researcher would like to generalise.

In this study, the target population was adolescents admitted for depression in a psychiatric unit in Federal Neuropsychiatric Hospital Enugu, Nigeria.

3.4 DESCRIPTION OF THE STUDY SITE

Enugu is one of the states/provinces located in the southeastern part of Nigeria. It is the home of the Igbo of southeastern and few Idoma/Igala people. There are two major governments owned psychiatric hospital in Enugu. Enugu has a total area of 7161 square kilometres with a density of 460 per kilometre square. Enugu State had a population of 3,267,837 people at the last Nigerian census held in 2006. It is estimated to be over 3.8 million in 2012 and 4,683,932 in 2018.

Table 3.1 Gender distribution (Last Nigerian Census 2006)

Gender	Number in figures	Percentage
Males	1,596,042	48.8%
Females	1,671, 795	51.2%

Table 3.2 Age groups distribution (Last Nigerian Census 2006)

Age groups	Numbers in figures	Percentage
0-14years	1,163,114	35.6%
15-64years	1,958,051	59.9%
65+ years	146,672	4.5%

3.5 SAMPLING

Sampling is the process of selecting a few (sample) from a bigger group (sampling population) as the basis for estimating or predicting the prevalence of an unknown piece of information, situation or outcome regarding the bigger group (Kumar 2012:229). There are two designs to sampling which are probability and non-probability sampling. Probability sampling involves random selection of participant where non-probability sampling approaches are used to choose participants by non-random methods (Polit & Beck 2012:275).

Qualitative research, in general, makes use of purposive sampling. According to Maree (2016:85), purposive sampling is precisely what the name suggests. Members of a sample are chosen with a 'purpose' to represent a phenomenon, group, incident, location or type in relation to a key criterion.

The aim of the qualitative study was to uncover several realities about the phenomenon, not to generalise to the target population (Polit& Beck 2012:515).

In this study, the aim was not to generalise the findings to the study population but to uncover meanings, explore and explain the factors that contribute to depression among adolescents. The researcher made use of purposive sampling method to recruit the study participants.

3.5.1 Sample and sample size

According to Kumar (2014:382), a sample is a sub-group of the population, which is the focus of a research enquiry and is selected in a way that it represents the study population. It is composed of a few individuals from whom the required information is collected. In this study, the researcher used only a sample of the population, as it was not possible to reach the whole population. In this study, the researcher used 30 participants who were interviewed face-to-face. The accessible population for this study was adolescents diagnosed and admitted for depression in a psychiatric unit.

3.5.1.1 Sampling procedure

Purposive sampling was used to recruit participants. Brink et al, (2018:126) describe purposive sampling as a judgemental sampling which is based on the researcher's judgement regarding participants or objects that are typical, or representative, of the study phenomenon, or who are especially knowledgeable. Its advantage is that it allows the researcher to select the sample based on knowledge of the phenomenon being studied.

Samples of participants used for the study were admitted for depression in Federal Neuropsychiatric Hospital Enugu, Nigeria. The researcher wrote a permission letter to conduct a study to the managing director and the Head of Department of Research and Training of the psychiatric hospital. The aims/purposes of the study were discussed with the prospective participants and hospital management so that they could understand what the study was all about.

The researcher invited the parents of the participants less than 18 years to the hospital and gave out the parental consent forms and information leaflets to them.

The researcher instructed the parents to read the information leaflet first before signing the consent forms to specify that they give consent to the study for their children to participate in the study.

Participants were recruited with the assistance from the ward sisters as they already had a good relationship with them. Their participation was voluntary. The researcher first asked permission from the parents of the adolescents below 18 years. Only those adolescents who had the signed consent form, or had signed parental consent form and signed assent form were recruited for participation in the study. Thirty (30) participants participated in the study.

3.5.2 Ethical issues related to sampling

The researcher ensured that participation was voluntary, all required information was given before consent, and assent forms were signed. They were informed of their right to withdraw at any time, refuse to give information and to ask for clarification about the

purpose of the study. The researcher also ensured their right to fair selection, treatment and cultural values. Purposive sampling was used.

3.5.3 Inclusion and exclusion criteria

In this study, sampling was based on the eligibility criteria of being an adolescent.

3.5.3.1 *Inclusion criteria*

- The participants were adolescents diagnosed and admitted in Federal Neuropsychiatric Hospital Enugu, Nigeria for depression.
- The participants were able to communicate effectively in English language. This is because English is the official language of Nigeria, as the researcher did not want to encounter a problem of interpretation/translation error during data collection and analysis. Hence, the non-English speaking adolescents and those who did not volunteer did not have a chance to participate.
- The adolescents were between 11 and 19 years of age.
- The volunteers were both adolescent boys and girls.

3.5.3.2 *Exclusion criteria*

Volunteers with the following characteristics were excluded from the study:

- Adolescents not diagnosed or admitted for depression.
- Adolescents below 11 years and above 19 years of age.
- Adolescents who did not consent to partake in the research study or those with parents who did not consent for their children to partake in the study.

3.6 DATA COLLECTION

Data collection describes the way in which the researcher approaches answering the research question (Brink et al, 2018:133). In this study, the researcher continuously collected data, examined and interpreted data, making decisions about how to proceed on what has already been revealed from the previous sessions.

3.6.1 Data collection approach and method

In this study, the researcher used individual face-to-face interviews to collect data from the study participants. The main aim of using individual face-to-face interview was to elicit information, beliefs or opinion from another person (Kumar 2014:176).

A semi-structured interview guide was used which was developed by the researcher. The researcher took a detailed notes of the conversations as well as audio taped the conversations. This was to ensure that the interview data were the participants' actual verbatim response (Polit & Beck 2012:534).

3.6.1.1 *Semi-structured face-to-face interviews*

An interview is essentially a person-to-person interaction, either face-to-face or otherwise, between two or more individuals with a specific purpose in mind. It involves an interviewer reading questions to respondents and recording their answers (Kumar, 2014:176).

According to Maree (2016:93), the semi-structured interview is commonly used in research projects to corroborate data emerging from other data sources. It seldom spans a long time and is usually based on a line of inquiry developed by the researcher in advance of the interview. In other words, there are certain open questions that are asked and further probing and clarification follow these.

As a researcher, you should be attentive to the responses of your participants so that you identify new emerging lines of inquiry that are related to the phenomenon being

studied, explore and probe these. At the same time, it is easy to be sidetracked by trivial aspects that are not related to the study.

3.6.1.1.1 *The characteristics of semi-structured interview*

The researcher had a list of themes and questions to be covered, although these may vary from one interview to the next.

Interview guides were used which includes a list of questions that have a bearing on the given theme and that the interviewer should raise during the course of the interview. It offers a versatile way of collecting data. It can be used in all age groups. May often be used when no other method is available or appropriate, it allows the interviewer to use probes with a view to clearing up vague responses, or to ask for elaboration of incomplete answers (Welman et al, 2012:166).

Brink et al (2018:143-144), explain that semi-structured interview ranges or falls between structured and unstructured interviews. During a semi-structured interview, the interviewer should ask a specified number of questions, but can pose additional ones. Both closed-ended and open-ended questions were included in a semi-structured interview.

3.6.1.1.2 *Advantages and disadvantages of semi-structured face-to-face interviews*

Advantages include personal contact, which can facilitate response and quality information. In addition, the respondents need not be literate (Joubert & Ehrlich 2007:108).

It provides uniform information, which assures the comparability of data. It also requires fewer interviewing skills (Kumar 2014: 178). More appropriate for a complex or sensitive situations as the interviewer has the opportunity to prepare a respondent before asking sensitive questions and to explain complex ones to them in person. Semi-structured face-to-face interview is useful for collecting in-depth information by probing the respondent further. An interviewer is able to supplement information obtained from responses with those gained from observation of non-verbal reactions. Questions can be explained or clarified if they are misunderstood. In addition, a semi-

structured interview has a wider application as it can be used with almost any type of population: children, the handicapped, illiterate or the very old (Kumar, 2014: 182).

Responses and retention rate is high and responses can be obtained from a wide range of participants-almost all segments of the population.

Disadvantages of semi-structured face-to-face interviews include the following;

- It is time consuming and expensive;
- Interpersonal factors (respondent's suspicion) may interfere with data collection (Joubert & Ehrlich 2007:108).

The quality of data depends upon the quality of the interaction: - In an interview, the quality of interaction between an interviewer and the interviewee is likely to affect the quality of the information obtained. In addition, because the interaction in each interview is unique, the quality of the responses obtained from different interviews may vary significantly.

The quality of data depends upon the quality of the interviewer. In an interview situation, the quality of the data generated is affected by the experience, skills and commitment of the interviewer.

The quality of the data may vary when multiple interviewers are used. Use of multiple interviewers may magnify the problems identified in the previous two points.

Possibility of researcher bias: - In an interview situation, a researcher's bias either in the framing of questions and/or in the interpretation of responses obtained is always possible. (Kumar 2014: 182).

Arranging interviews may be difficult. Participants may be anxious because answers are being recorded and may provide socially acceptable responses (Brink et al, 2018:139).

3.6.2 Characteristics of data collection instrument

The data collection instruments used in this study was the researcher and a semi-structured interview guide or schedule.

The semi-structured interview guide was prepared in the formal language (English) which is the main language spoken in the research setting. The semi-structured interview guide (see Annexure H) was included in the proposal, which was approved by the Ethics Committee of the University of South Africa.

The researcher used the interview guide to direct the interviews. It was written at the level of the participants' educational level so the questions are clearly understood. During the interviews, detailed notes were taken and a quality audio tape was used to record the conversations between the researcher and the participants.

3.6.3 Data collection process

Data collection sessions were done in the psychiatric unit. Each participant used was taken to a separate office away, from the other participants and other hospital staff to maintain privacy. The researcher made an effort to ensure that participants were comfortable. One on one face-to-face interview sessions were conducted on scheduled dates and times. The researcher spent time with the participants prior to the data collection to establish trust and rapport. The study aims, objectives and ethical issues during and after data collection period were explained.

All the necessary forms were signed before each session started including the information leaflet. The participants under the age of 18 years were given the assent form to ensure their affirmative agreement to partake in the study. Consent forms were given and signed by the participants who were 18 years and above as evidence that they were given appropriate information about the proposed study and have accepted to partake in the study. They understood information given and that they could decline participation voluntarily. The researcher also gave them confidentiality-binding forms that were read and signed as confidential agreement between the researcher and participants that the information recorded will not be made public and accessible to others not directly related to the study unless permission was given to do that. Participants were also asked not to divulge anyone discussed with them to any other person.

The researcher used a tape recorder, recorded the interview sessions with the participants, and took notes of the non-verbal behaviour and what they are saying by

hand. They were motivated to speak slowly and audibly on the speaker to improve the voice recordings. Interview schedule/guide (see annexure H) which included a set of pre-set questions and probes were used to guide the interview.

The researcher started the discussion with the demographic questions like age, gender, religion, educational/grade level, and ethnicity. This was then, followed by main questions like what contributed to your low mood/ why were you admitted in this hospital, what is depression/low mood, what factors they believed that contributed to them being diagnosed of depression. Probing questions further allowed the researcher to elicit information from them.

The interview did not follow the order in the interview guide at all times as each point was the start of another particular discussion directly related to the study and some questions were already answered during the session. The researcher made sure that all aspects of the questions were covered. The participants' stories were listened so well by so that follow-up or probing questions would be asked.

An atmosphere of concern and nurture was ensured and was prepared to manage any possible crises such as anger and irritability by ensuring that nursing sisters are around in the ward. None of them had a psychological breakdown, as they were emotionally prepared at hand. The researcher took notes during the sessions to make sure that the data are reliable and to avoid loss of information. Each interview session was ended when the study participants' responses were no longer yielding new responses to the researcher and was rounded up with repeating new themes that came up. They were asked to verify and if they agreed with them.

When concluding the sessions, the researcher showed her appreciation to the participants for their participation in the study. They were asked to refer any other interested depressed adolescent they know in the unit to the researcher for more interviews. Each session lasted between 10 minutes to 30 minutes to elicit more themes but also depended on their situation. The data collected were rich and helpful to draw a conclusion. Refreshments were served thereafter and sessions were closed.

3.6.4 Ethical considerations related to data collection

Researchers involved in research with human participants have special concerns related to the protection of human rights and to social well-being, particularly in lower and middle income and resource-restrained countries (Brink et al, 2018:28). During the process of data collection, the researcher ensured that the rights of the participants were protected and not violated because of the study. The Code of Ethics of the University of South Africa's Research Ethics committee and Training Department at the Federal Neuropsychiatric Hospital Enugu, Nigeria's research policies guided ethical considerations.

3.6.4.1 Study permission

Both the Ethics committees of University of South Africa and Research and Training Department of the Federal Neuropsychiatric Hospital Enugu, Nigeria granted the permission to conduct the research study (See annexure A, B and C).

The researcher sent a letter of permission to conduct the study to both the hospital management and the Research and Training Department of the Federal Neuropsychiatric Hospital Enugu, Nigeria.

Gaining an access and being accepted to the hospital to do the study was a slow process as the Research and Training Department had to review the proposal to assess if the study's findings would be useful in reducing adolescents' depression and devising better treatment strategies for proper intervention. It took quite some time to be approved and feedback to be given to the researcher to commence the study. A letter of approval was given later to the researcher after confirming from the supervisor that the researcher is actually a student in University of South Africa (see Annexure C).

Information leaflets (see annexure D) were given and explained to the participants to make sure that the purposes and benefits of the research were understood. The researcher was given the permission to carry out the study with the depressed adolescents.

Parents or guardians and adolescents above the age of 18 years respectively signed the consent forms, assent forms and confidentiality-binding forms (see annexure E, F and G). The researcher carried out the sessions in the hospital wards.

3.6.4.2 *Informed consent*

Informed consent implies that subjects are made adequately aware of the type of information you want from them, why the information is being sought, what purpose it will be put to, how they are expected to participate in the study, and how it will directly or indirectly affect them (Kumar, 2014:285). The ethical principles of voluntary participation and protecting the participants from harm are formalised (Brink et al., 2018:32). In this current study, the participants chose whether to grant consent. Some of the participants older than 18 years of age were treated as autonomous agents, able to control what they do.

In order to obtain the participant's consent, the researcher provided them with comprehensive information regarding their participation, which was included in the information leaflet. The researcher ensured the participants understood the information written in the informed consent (See annexure E for the consent form used in the study).

The researcher made sure that the study was voluntary, making sure that the participants were not unduly influenced or coerced into participation. More importantly, they are allowed to ask questions, allowed to refuse to give information during the course of the study and to withdraw from the study without penalty. The researcher explained the aims and purposes, benefits of the study in details.

Those participants (below 18 years) who were unable to give consent owing to their age were asked to sign assent form and their guardians or parents were asked to sign an informed consent after reading the information leaflet. The researcher read the information leaflet with the child participants to make sure that they understood it before embarking on the study. The older participants who were 18 years of age and above at the time of the research who gave their consent were also recruited for the study.

3.6.4.3 *Confidentiality and privacy*

The researcher ensured that the ethical principle of confidentiality was maintained. The study participants were assured that the information they gave out to the researcher would be kept confidential and anonymous. The researcher achieved this by storing the audiotape used for the recording of the data was kept in a locked safe and sound place so that only the researcher and the supervisor had access to it. The researcher used a code name when referring to the participants in all the letters. They were given the confidentiality binding form (see annexure G) to sign before commencement of the interview. Moreover, the researcher ensured that privacy was maintained throughout the study.

3.6.4.4 *Non-maleficence and equity*

The Research Ethics Committee and Training Department at the Federal Neuropsychiatric Hospital, Enugu reviewed and approved the study before it was conducted. Research proposal document was sent to them. The participants for the study did not encounter any risk. Arrangements were made for them to see the hospital psychologist for counselling if need arises.

The principle of equity was ensured as every participant was fairly selected. The requirement of the study was put into consideration for participation and not the vulnerability of the participants. No participant was either discriminated or exploited. The researcher treated every participant in the same manner despite withdrawal or refusal to give certain information.

3.6.4.5 *Beneficence*

The researcher ensured that the participant's well-being was secured. None of the study participants was benefited in terms of payment for their time or information given. They were given an assurance that the current study will be useful for all adolescents

suffering from depression as proper treatment strategies to be devised to alleviate depression.

3.6.4.6 *Competence*

The researcher went through the research process without having any experience, as this was her first research. The researcher sought for the supervisor's assistance and guidance, which was given properly. This was to avoid harming the participants unintentionally, abusing the subjects' good will and avoiding wasting time and resources.

3.6.4.7 *Literature review*

The researcher did a thorough literature review (See chapter two for details).

3.6.4.8 *Plagiarism*

This is described, as the use of someone else's work and claiming to be yours (Kumar, 2014:289). To plagiarise is totally unethical as well as illegal in research. The researcher ensured that all the borrowed ideas and citations were properly acknowledged and cited. They were referenced in the text and included in the list of sources.

3.6.4.9 *Falsification of results*

Falsification, fabrication or forgery of results is unethical in research (Brink et al, 2018:36). The researcher collected the data and reported only that which came up from the research investigation.

3.7 TRUSTWORTHINESS OF THE STUDY

Polit and Beck (2012:745) define trustworthiness as the degree of confidence that qualitative researchers have in their data, which is assessed through the criteria of credibility, transferability, dependability, conformability and authenticity. According to Kumar (2014:219), four indicators closely related to validity and reliability in quantitative research determines trustworthiness in a qualitative study. They include credibility (paralleling internal validity), transferability (paralleling external validity), dependability (paralleling reliability) and conformability (paralleling objectivity).

3.7.1 Credibility of the study

Credibility alludes to confidence in the truth of the data and the interpretation thereof (Brink et al, 2018:158).

It involves establishing that the results of qualitative research are credible or believable from the perspective of the participant in the research (Kumar 2014: 219). In the current study, credibility was achieved through the following techniques;

- Prolonged engagement by remaining in the study field until enough data was collected. This engagement took many weeks to achieve. In this way, the researched gained an in-depth understanding of the phenomenon as well as specific aspects of the participants. It helped to build a trust and rapport between the researcher and the participants.
- Referral adequacy by determining all-important materials available to document findings.
- Verbatim transcription of the audio-taped interview sessions was done by the researcher shortly after each session by listening to the audio tape many times until every information in the audio was written down. Interviews were transcribed with rigor. All the transcripts were checked for accuracy. The original tape recorder was locked in safe under a key.

- Persistent observation by consistently pursuing interpretations in various ways during the study. The researcher looks for multiple influences through a process of continuous analysis, and determines what counts and what does not.
- Peer debriefing by seeking the opinions of peers outside the study who have similar status or are colleagues who are experts in either the method or phenomenon being studied. These colleagues have a general understanding of the study and were able to debate each step of the research process with the researcher.
- Credibility was maintained by having research participants' review, validating and verifying the researcher's interpretations and conclusion (member-checking) which was done to ensure that the facts have not been misconstrued. The research context, participants of the study, experiences and processes observed was described. The researcher's credential, background on the title page and other important documents was attached in the list of annexure (see annexure I).

3.7.2 Dependability of the study

It is concerned with whether we would obtain the same results if we could observe the same thing twice (Kumar, 2014: 219). The term refers to data's stability over time (Brink et al, 2018:159).

In this study, dependability was ensured through stepwise replication (keeping an extensive and detailed record of the research process for others to replicate to ascertain). It was also ensured by taking a detailed note and audiotaping of the face-to-face interview. Audio tapes were transcribed and crosschecked with information captured on field notes.

3.7.3 Confirmability of the study

This refers to the degree to which the results could be confirmed or corroborated by others (Kumar 2014: 219). It also refers to the potential for congruency of data in terms

of accuracy, relevance or meaning. It is concerned with establishing whether data represent the information provided by the participants and that do not fuel the interpretations by the researcher's biases or perception (Brink et al, 2018:159)

In this study, the researcher followed the research process in an identical manner for the results to be compared. Member checking was done by confirming with participants if the conversations that were captured were what they wanted to report and to check if the tape recorder actually captured the conversation. Debriefing was done by sending the draft copies to the supervisor for comments and the supervisor may do inquiry audit.

3.7.4 Transferability of the study

This refers to the degree to which the results of qualitative research can be generalised or transferred to other contexts or settings (Kumar 2014: 219).

In this study, the researcher ensured transferability by extensively and thoroughly describing the process adopted for others to follow and replicate (thick description).

Purposive sampling was used to get the most out of the range of specific information obtained from the participants, by purposely selecting participants (adolescents admitted with depression).

The researcher ensured that data saturation took place whereby additional participants did not give new information and when themes that emerge became repetitive. The sample was then considered adequate and data became rich and thick.

3.7.5 Authenticity of the study

This refers to the degree to which researchers fairly and faithfully show a range of realities. A report must convey the experiences and emotions of the participants as they occur (Polit & Beck 2012:720). The reader should develop an increased sensitivity to the issues being discussed, and should be able to understand the lives being

portrayed in the report with some sense of the participants' experiences and emotions (Brink et al, 2018:160).

In the current study, authenticity was maintained by the researcher engaging with the participants at least for 15 minutes to 30 minutes per session. Audiotaping and verbatim transcription were done shortly after each session with each participant. Coding was done with each transcript and a codebook was kept. Data presentation was vivid and thick.

3.8 DATA ANALYSIS

Data analysis is described as the systematic organisation of data and synthesis of research data. In quantitative studies, it is regarded as the testing of hypotheses using data (Polit & Beck 2012:725). In addition, Brink et al., (2018: 165) indicate that it entails categorising, ordering and summarising the data, and describing them in meaningful terms.

In the current study, data collection and data analysis were done concurrently (Brink et al., 2018:180). This means that the data were analysed by the researcher shortly after each session of interview and came up with themes and these themes were redefined as collection of data continued until when data saturation was reached (Polit & Beck 2012:15). This allowed the researcher not to miss any important information that could be gathered only at the same time as data were collected. At same time, on-going analysis allowed for simultaneous data collection and analysis which builds on the strength of the qualitative methods as an inductive process for building theory and interpretations from the perspective of the people studied (Gray 2009:499).

In the current study, the researcher content analysis was used to analyse all the data collected. Content analysis means the studies that analyse the content of texts or documents (such as letters, speeches, and annual reports). 'Content' refers to words, meanings, pictures, symbols, themes or any message that can be communicated (Mouton 2015:165-166).

Welman et al., (2012:221) describe content analysis as a quantitative analysis of qualitative data. The vital technique involves counting the frequencies and sequencing of particular words, phrases or concepts in order to identify the keywords or themes.

3.8.1 Preparation of field notes and transcripts

Tape recordings were transcribed to text by the researcher before being processed. This was done by listening to the tape recording of the interviews sessions and the researcher typed what was said into the word processing file. Accuracy of the transcribed data was checked by continuously listening to the taped interviews sessions. In order to analyse the raw notes, the notes were processed by converting them to write-ups, which were intelligible products that could be read, edited for accuracy, commented on, and analysed. Words emphases, pauses, and incomplete sentences were taken into consideration in the write-ups. These were added into the transcription of the specific session during crosscheck. The researcher then kept the original data in the computer protected by a password (Welman et al., 2012:211: Maree, 2016: 114).

3.8.2 Organisation of the data into codes (Coding)

The purpose of coding was to analyse and make sense of the data that were collected. Codes are tags or labels that attach meaning to the raw data or notes collected during fieldwork (Welman et al., 2012:214). Coding is the process of reading carefully through the transcribed data, line by line, and dividing it into meaningful analytical units. It is defined as marking the segments of data with symbols, descriptive words or unique identifying names (Maree, 2016:116).

When the researcher finished crosschecking the transcribed data and added in the write-ups of non-verbal behaviours, the data were then organised into codes followed by creation of categories. The researcher achieved this by reading transcripts not once but many times, making comments and headings on the transcripts while reading.

3.8.3 Establishment of themes or categories

A category can be referred to a group of content that shares a commonality (Maree, 2016:119). The researcher identified the themes by writing the headings about particular words, phrases or concepts in order to identify the key words or categories that indicated the contributing factors of depression in adolescents admitted in the psychiatric units. New codes were formulated as the themes continued to emerge during the process of re-reading the scripts and reviewing the notes from the interviews. Each theme was assigned a code that was written on the margin and as many themes as necessary were written down in the text about the contributing factors of depression. These themes were transferred from the margins into the coding sheets and categories were freely generated at this stage (Welman et al., 2012:211).

Lists of categories were grouped into subcategories by making comparisons and contrasting of answers given by members during the interview sessions. The comparison was done to compare sections of the text and tried to identify the reasons why chunks of text differed from each other or the same. This was done by collapsing those that were similar or dissimilar. Statistical analysis of the obtained data was done by calculating the frequencies or percentages in order to appearance of the themes (ibid).

3.9 CONCLUSION

This chapter discussed the research design, research methodology and the research instruments. The chapter also described the data collection methods and the sampling procedure followed during the selection of a sample for the study. The researcher outlined the process of how the study was conducted such as gaining access through the gatekeepers, and recruitment of study participants. Method of data collection, data analysis and ethical considerations applied in the study were explained. Next chapter will explain the data analysis, presentation and the description of the research findings.

CHAPTER 4

RESEARCH FINDINGS AND DISCUSSION

4.1 INTRODUCTION

This chapter presents the research results and findings. The aim of this chapter was to present and interpret qualitative data collected from the participants by the means of face-to-face interviews. Hence, data management and analysis were discussed in conjunction with the themes that emerged from the subjects' interviews. The researcher used content analysis to analyse the collected data. The results will be presented as demographic profile and as themes and subthemes that emerged from the content analysis.

4.2 RESEARCH RESULTS

The research study was based mainly on the factors contributing to depression in adolescents aged 11-19 admitted to a psychiatric hospital as indicated in Table 4.1.

4.2.1 Demographic profile of participants

The study had 30 participants as outlined in the below Table 4.1

(Participants)	Age (Years)	Gender	Level of education (Grade)	Ethnic Group
1	19	Male	Year 1 tertiary	Igbo
2	18	Female	12	Igbo
3	19	Female	12	Igbo
4	18	Female	12	Igbo
5	18	Male	Year 1 tertiary	Igbo
6	19	Female	Year 2 tertiary	Idoma
7	17	Female	12	Igbo
8	18	Female	12	Igbo
9	18	Female	12	Igbo
10	16	Female	10	Igbo
11	19	Female	12	Idoma
12	15	Female	9	Igbo
13	16	Female	11	Igbo
14	14	Male	10	Igbo
15	12	Male	6	Igala
16	19	Male	12	Igbo
17	19	Female	12	Igbo
18	18	Male	10	Igbo
19	12	Male	7	Igbo
20	18	Female	12	Igbo
21	16	Female	10	Igbo

Participants	Age (years)	Gender	Level of education (Grade)	Ethnic Group
22	18	Male	12	Igbo
23	15	Male	10	Igbo
24	15	Male	11	Igbo
25	18	Female	12	Igbo
26	19	Female	Year 2 tertiary	Igbo
27	18	Male	12	Igbo
28	18	Female	12	Igbo
29	18	Female	12	Igbo
30	18	Female	12	Igbo

4.2.1.1 Age

The participants in the study were aged between 12 to 19 years. Out of 30 participants, 13 of them were aged 18 years and there were no participants aged 11 years. This is not surprising as the study conducted by Gouws (2015: 168), stated that perspectives on depression have changed from a view that it largely afflicts adult to the recognition that depression also occurs among children and adolescents. Depression occurs in all children of all ages, becoming pervasive with increasing age.

4.2.1.2 Gender

Nineteen females participated in this study. The depression among females was more significant than in male adolescents. This is in agreement with the studies conducted by Mennen, Negriff, Schneiderman and Trickett (2018:242) who explained sex of the child has been found to be a determinant of the prevalence of both internalising and externalising behaviours in children and adolescents. Adolescent girls are at more risk of depression compared to boys. The current study also concurred with the study done by Mark, Anna, Dan, David & Landon (2009:367-373) who further stated that the

prevalence of major depression was 9.7% for lifetime. The prevalence was significantly higher among females than among males.

The current study is further corroborates with the studies conducted by De Souza Duarte et al (2017:71-72) who believed that females have a greater predisposition to develop depression owing to drastic hormonal changes in puberty, in each menstrual cycle, in the post-partum period, and in menopause. At the beginning of puberty, the adolescent female starts the production of gonadal hormones, acquiring the so-called “periodicity”. This fact, coupled with the onset of sudden hormonal changes, seems to contribute to the development of mood disorders. These hormones influence the psychic state of the adolescent by the modulation of the serotonergic system. In contrast, males do not undergo the above hormonal changes in their body. Hence, females are more depressed than males.

4.2.1.3 *Level of education*

Most of the participants (53.3%) in the study were either in Grade 12 or left school after Grade 12. The rest (46.7%) were in either Grade 6, 7, 9, 10, 11 or tertiary level. Some of them could not continue because of low socio-economic class. This corroborates with the studies conducted by Oderinde et al., (2018:199) IdoEkiti, South West Nigeria who explained that socio-economic class was also found to be extensively related with depression in adolescents.

4.2.1.4 *Ethnic group*

About 90% participants in the study hailed from Igbo culture and the rest were from the minority groups: Idoma and Igala. This was in agreement with Nigerian census conducted in the study area in 2006 where it stated that Enugu is one of the states/provinces located in the southeastern part of Nigeria. It is the home of the Igbo of southeastern and few Idoma/Igala people.

4.3 THEMES AND SUB-THEMES

The researcher identified three themes based on the responses given by the participants. These are biological, psychological and social factors. All the themes had subthemes as shown below in **Table 4.2**

THEMES	SUB-THEMES
Biological factors	1.1 Substance abuse 1.2 Medical conditions 1.3 Physical disability 1.4 Obesity 1.5 Hormonal imbalances
Psychological factors	2.1 Loss 2.2 Relationship problems 2.3 Stress 2.4 Sexual abuse (Rape) 2.5 Mental illness 2.6 Family Problems 2.7 Poor early attachment 2.8 Sexual orientation
Social factors	3.1 Financial problems 3.2 Cultural influences 3.3 Loneliness 3.4 Failure of examinations 3.5 problems at school

4.3.1 Biological factors

Biological factors are factors that contribute to depression in adolescents because of factors in the person's surrounding that may be negative to the individual. Under the biological factors, there were five sub-themes as substance abuse, medical conditions, physical disability, obesity and hormonal imbalance.

4.3.1.1 Substance abuse

Based on the study's findings, some of the participants who were abusing substances (drugs or substances) reported that they were depressed because of the need for constant urge to feed their cravings for substances. This usually occurs when they have no money to buy them. This category had the highest ranking in this theme. This was substantiated by the extracts below:

"I feel depressed because I am using marijuana and sometimes I do not have money to buy it.

"Drugs make me to feel high and forget my problems. Feeding my cravings becomes difficult."

Participants explained that they used drugs and alcohol to forget their problems and ended up being drunk with low mood. They had no control over these substances as their life depended on them.

The current study aligned with studies conducted by Alia (2017:2) who noted that adolescents with depression might abuse substances, such as drugs and alcohol as a way to reduce their symptoms. Alia further asserts that substance abuse would only make the symptoms of depression and the negative effects worse. Wu, Hoven, Okezie, et al., (2008: 63) report that alcohol abuse/ dependence was associated with elevated rates of depression in adolescents.

Further, the promotion of instant gratification (whether effected by sex, drugs and mobile phone) resulted in adolescents failing to learn to deal with frustration or to 'do without' and therefore having less self-reliance and resilience. Such changes are also

implicated in the increase in drug taking by adolescents, which itself may contribute directly and iteratively to adolescent depression (Alan & Christine 2009:22).

4.3.1.2 *Medical conditions*

The study's findings showed that the medical conditions contributed to a significant number of adolescents' depression in adolescents who participated in the study.

“Living with this disease called HIV gives me a feeling that I cannot survive life in future as I am having the fear of death.”

The current study suggested that they are scared of death and suffering from effects of HIV. Some of them have witnessed the death of their infected friends and relatives. The physical effects of HIV infection because of body infirmity led to body image disturbance. Some of them explained that they felt depressed each time they remembered that this HIV virus still exists in their body, as there is no permanent cure yet and so many other people have died because of it.

“Diagnosed of diabetes mellitus since the age of seven with the pains of injecting myself with insulin every day, pricking my fingers while checking for my blood sugar levels and constantly undergoing for medical check-ups makes me to have a suicidal thought sometimes.”

The findings also showed that owing to some of them were tired and weak because of being constantly admitted in the hospital. Hence, they have developed the feeling of being different from their peers and being a burden to their family members and friends.

The presence of a medical condition (co-morbidity) in an adolescent has some effects. This corroborates with the study conducted in Harare, Zimbabwe, by Willis, et al., (2018:1) on HIV positive adolescents between the age of 15-19 years on their experience and manifestation of depression, participants ascribed their depression experiences to their relationships and interactions with significant people in their lives, primarily family members and peers. A sense of being different from others was general among them, both owing to their HIV status and the impact HIV has had on

their life situation. The current study findings concur with the studies conducted above by the other researchers.

4.3.1.3 *Physical disability*

Some participants mentioned physical disability as contributing to their depression. The findings showed that those participants who did not have a proper walking aid such as wheel chair, crutches, walking stick and others easily got tired and weak hence developed a feeling of irritability and depression about their physical condition. Some of the extracts from the participants are:

'My disability weakens my body especially after walking a long distance'

They complained that getting a support with their physical disability is very difficult, as the Nigerian government does not cater for people with disabilities. Most of them depended on their family for a living while those whose family could not afford a decent meal ended up begging for alms in the public places.

'The country's economic situation is very bad as there is no grant for people with disability'

The current study revealed similar findings with a study conducted by Xuchu (2016: 2) who stated that physical disability was found to be related to depressive symptoms. People with disability usually experience multiple risk factors for depressive symptoms, including stereotypic social and personal attitude; abuse; loss of roles; and stressors owing to poverty, environmental barriers, and/ or lack of access to appropriate healthcare.

4.3.1.4 *Obesity*

Some participants reported that obesity contributed to their depression in adolescents in this theme. Obesity can be attributed to their genetic make-up in the family and the dietary patterns, as most adolescents from rich families prefer junk and unhealthy foods.

“I always have low energy, easily gets tired and exhausted after walking because of my body size”.

Some of them explained that they could not walk a long distance like their peers because they felt exhausted and felt like fainting after such an exercise.

“I get sad when I see slim people around me and feel like am not normal”.

The affected adolescents experienced loss of self-esteem as they felt like abnormal people when they were together with their peers. They felt worse about things such as their looks, their capacities and their worthiness. Some of their peers laughed at them because of their big body size.

The current study supported the studies conducted by Rankin, Mathews, Cobley, et al., (2016:125), report that childhood or adolescent obesity is one of the major serious public health challenges of the 21st century with far-reaching and enduring adverse consequences for health outcomes. Weight gain during childhood and adolescence may be related to depression, negative mood states and poor self-esteem. Chinawa et al. (2015:50) also reveal a positive relationship between depression and weight gain among adolescents. Adolescents (especially those who were severely depressed) admitted that they were gaining weight. It is bewildering, if weight gain leads to depression or vice versa.

4.3.1.5 *Hormonal imbalances*

The study findings showed that due to the changes undergone mostly in the adolescents (girls) during the pubertal stage, their moods and emotions were affected.

“I cannot tell what is happening to me as I am always feeling depressed. The feeling is worse in certain days. Concentrating and making a decision is very hard for me.”

The current study indicated that hormonal imbalances played a vital part in the emotional state of adolescents. This was in agreement with the studies conducted by De Souza Duarte et al. (2017:69). The latter explained that hormonal changes can

lead to significant emotional changes and vice versa, owing to changes in the central nervous system, action of hormones on specific receptors or by metabolic changes, therefore, the endocrine disorders become one of the possible causes of depression. Corticotrophin hormone, cortisol, oestrogen, progesterone and thyroid hormones were identified as the main hormones related to depression. These hormones are essential for the correct functioning of the metabolism. Therefore, it is observed that hormonal changes may contribute to the development of depression as well as aggravate it or even hamper the treatment of patients who already have the disorder.

The findings of the study indicated that the biological factors appeared to have the lowest part of the factors contributing to depression in adolescents admitted in a psychiatric hospital. Burns and Roos (2016:476) indicate that these factors include genetic, another medical condition (e.g. HIV, malnutrition, brain injury, metabolic, endocrine), substances etc. These factors could also arise because of genetic make-up of a person or other surrounding factor (family history with increased risk of depressive disorders). The category substances abuse showed the highest factor with 46.43%, followed by obesity with 25%, medical conditions with 14.28 percentage, physical disability 8.93 and hormonal imbalances with 5.36 percentage.

4.3.2 Psychological factors

Psychological factors that contributed to depression in adolescents were those that were associated to thoughts, feelings and other cognitive characteristics. These factors would then have an effect on the attitude, behaviour, functions of human mind and drive the action of an individual to seek satisfaction. It also affected how an individual thinks and later affected their decisions and relations in daily life.

4.3.2.1 Loss

The study findings showed that those adolescent who had a loss of their close relatives or friends were severely depressed. Loss and grief were often exacerbated where depressed adolescents were living in an unsupportive households or where a loving, caregiver relationship was lacking.

“The death of my two parents gave me a big blow. I do not think I can recover from that. Having no other relative to depend on after such a big loss caused a major contribution to my low mood and depression. I miss the love they usually give us in our family.”

“My father was a caring and loving to me and my siblings when he was alive. But since we lost him, life has been very hard for us especially to my mother who has to cater for every family needs”

“I am so sad with my lovely aunt’s death. I felt like joining her in the spirit world. I feel hopeless and empty without her”.

The study findings also showed that loss of the loved ones affected the psychological and physical wellbeing of the affected depressed adolescents. Therefore, it had a negative effect on them. Some of them had no one to depend on and that aggravates their condition as they live below living standard due to poverty too.

The study findings concur with the studies carried out in IdoEkiti, South West Nigeria by Oderinde et al (2018:199) who found that the death of a parent was significantly associated with adolescent depression. They further indicate that adolescents who had experienced parental death were more likely to be depressed than those who had not. The reason for this observation is obvious, since such adolescents are often deprived of secure and loving relationships with their parents and these are protective factors that reduce the rate of emotional disorders among adolescents.

4.3.2.2 Relationship problems

The study findings revealed that the grief resulting from the loss of a relationship could be a causal factor of depression if it continued. They did not like the feeling of being rejected by their so-called partners.

“My school boyfriend left me and that broke my heart. I am better off than his new girlfriend and cannot sleep at night still thinking of him’.

The recent study showed that losing such a relationship after making an investment of time, energy and feeling could put off the sense of self and caused depression.

This was in agreement with studies conducted by Nalin (2018:2) who explained that many adolescents enjoyed the experience of relationships while they were in school. However, when a long-term relationship ends, it could feel devastating for an adolescent. The loss of relationship could lead to all sorts of feelings and thoughts that might in turn contribute to depression.

4.3.2.3 Stress

The study findings revealed that stress has a major contribution to depression in the adolescents.

My left foot was chopped off as a result of a motor vehicle accident which I sustained as a result of the carelessness of the driver. It has not been easy for me as I cannot live better as before. Watching my left leg gives me sleepless night.

The study findings revealed that the affected adolescents feel scared thinking that their life was still in danger and had no control over what is happening around them. They kept on having memories or flashback of their traumatic events and have stress when something reminded them of the events.

The current study was in agreement with the studies done by Burns and Roos (2016:516), who explained that post-traumatic stress disorder had characteristics and they included re-experiencing symptoms, distressing recollections, persistent avoidance and hyper-arousal in response to exposure to one or more traumatic events. Many adolescents were exposed to traumatic situations such as physical or sexual abuse, domestic violence, being in war-torn areas, natural and other disasters or might experience severe medical illnesses directly (witnessed) or indirectly (unwitnessed).

“Emotional stress of waking up very early to help my mother with her business is too much. I am not happy and have lost interest in pleasurable activities as I am always busy with her business”.

The affected adolescents had no time to do their own things, for example school works and other pleasurable activities for the people in their peers. Hence, they were always preoccupied up with the making of income with their parents in order for the family to be sustained financially. They had no time for their studies and schoolwork. This could also be contributed to stress of financial problem in the family.

The current study resonates with the study conducted by Harsha (2017:5) who described stress as a process in which environmental demands tax or exceeds the adaptive capacity of an organism, resulting in psychological and biological changes that may place a person at risk for disease. Stress is defined as burdens, pressures, anxieties and worries. Everyone has had it or has in one point in their high school life. The students today are facing with new challenges in education calling for greater effort from students.

4.3.2.4 Sexual abuse (rape)

Sexual abuse has contributed to majority of the affected adolescents been depressed in this theme.

“I lost my virginity as a result of the rape. Looking at my pregnant bump reminds me of the rape. I ended up been pregnant and carrying an unwanted pregnancy which I do not have power over. People laugh at me and judge me for been pregnant hence I am going to be a single mother in future.”

“My maternal uncle sexually abused me severally and nothing could be done by my mother. We kept it a secret as we were scared to say it out.”

The study findings also showed that sexual abuse victims have close relation with the family making it difficult to verbalise their abuse. They also have the fear of reporting earlier because they do not want to be judged by others.

This was in support with the studies conducted by Mballo, et al. (2017:302) where they explained that exposure to trauma in form of sexual assault (rape) and its severity (verbal threat during the rape incident, being punched/kicked and choked, threatened with weapon and the use of weapon) will amplify the risk of depression and posttraumatic stress disorder.

4.3.2.5 *Mental Illness*

The current study showed that clinical depression has been related to other mental illnesses such as anxiety and panic disorders. Participants who are already diagnosed of mental illness reported that mental illness was the cause of their low mood. Some the depressed adolescents were previously diagnosed of anxiety disorder.

“I am anxious at all times and feeling like ending my life. I was recently diagnosed of anxiety.”

This was in agreement with the studies conducted by Burns and Roos (2016:512) who stated that two-thirds of children and adolescents with depression have co-morbid psychiatric conditions.

Common co-morbid disorders are anxiety disorders, attention-deficit hyperactivity disorder (ADHD), disruptive behaviour disorders, obsessive-compulsive disorder, eating disorders or substance-related disorders.

This was also in support with the study conducted by World Health Organisation (WHO), between 10% and 20% of children and adolescents worldwide experience mental health disorders. Half of all mental illnesses begin by the age of 14 and three-quarters by mid-20s. The South African National Youth at Risk Survey, which focuses on children and adolescents between Grade 8 and 11, highlighted that 24% of the youth surveyed had experienced feelings of depression, hopelessness and sadness and a further 21% had attempted suicide at least once (Lifestyle Magazine 2017:3).

4.3.2.6 *Family problems*

The current study showed that family has an effect on adolescents as its influence was very big and it played an imperative role in the well-being of its members. Some of them coming from a polygamous family structure did not know peace, as there were always problems and conflicts in the family.

“I have no joy in my life because of our constant family problems (conflict). My father did not write a will. I do not sleep at night thinking of our family future. There is no peace in my family compound because all the members are fighting for the common family property”.

“Divorce of my parents has torn me apart”

This was in agreement with the study conducted by Alan and Christine (2009:21) who stated that an adverse family environment has an impact on increasing the risk of depression, suicidal ideation and suicidal attempts in adolescence. They further noted that depressed adolescents perceive their families as more conflictual, rejecting, non-supporting and abusive (but, the conflict may be due to having a depressed adolescent in the family).

Key parental contributions include behaviours and attitudes that increase insecurity in the child, promote self-esteem, chaotic family environments, larger family size, parental divorce, lack of perceived social support, sexual abuse, older sibling with drugs or alcohol dependency and unsupportive modelling by parents may leave children bereft of skills to regulate negative effects.

The findings of current study were further supported by the studies conducted by Oderinde et al. (2018:199) who explained that adolescents from polygamous/extended families were almost six times more likely to be depressed than those from monogamous family and this was significantly and independently associated with depression. This might be owing to parents in polygamous family settings being unable to fulfil the needs of their growing adolescents because more

numbers of children in the family. Such needs would include food, clothing, education, love, care, emotional support, parental support and financial needs.

“I lack an intimate relationship with my father because he and my mother does not see eye to eye. This tears me apart when I see other children in our street together with their parents.”

They further explained that divorce was a contributing factor to depression with the evidence that adolescents from separated/divorced families have a propensity to be more depressed than their same aged peer from intact families. This could be, because such adolescents from divorced home tend to have less intimate relationship with their parents.

4.3.2.7 *Poor early attachment*

The study findings showed that those participants with poor early attachment lacked the love and trust of a caregiver especially the mother. They did not experience warmth and loving affection, could not listen and communicate openly with the peers, lacked happiness and shows the feeling of anxiety, aggressive and withdrawn behaviour in their lives.

“I was left by my mother at a very tender age and did not get the motherly love as a child”.

The current study was in agreement with the study conducted by Newman (2017: 6) who stated that poor early or insecure attachments might lead to risk of unpleasant behavioural patterns, as early as pre-school age. Internalised problems; such as, depression, anxiety, and psychopathology are also the result of insecure attachments during early childhood. These issues may lead to peer exclusion, social rejection, continued anxiety, prolonged depression, low self-esteem, and difficulties adjusting as they progress through school age and adolescent years.

4.3.2.8 Sexual orientation (homosexuality)

The study findings depicted that those adolescent who are gay feel anxious and scared to socialize with their fellow adolescents. Some of them took comfort in social media where they have access to communicate with people of their like. They also experience loss of self-esteem, as they no longer feel that they are a normal human being. Some of the depressed adolescents have a fear of rejection, hostility and being discriminated by others.

*“I prefer to hide myself from the society to avoid being judged by others. I only find pleasure from social media especially with people of my type. I have a low self-esteem when am around the other people leaving me with a feeling that am not **normal**”.*

This was in alignment with the research study done by Louw and Louw (2014:321) where they explained that the confusion and anxiety that often accompany the development of a heterosexual orientation in adolescence is mostly intensified for adolescents who are homosexual. Fear of rejection, hostility and discrimination that are usually aimed at homosexuals called homophobia- prevent them from disclosing their orientation. The result is that homosexual adolescents mostly feel that they have nowhere to turn. In addition, they have no other option but to wear a “mask of heterosexuality” by, for example, dating the opposite sex and even telling and laughing at jokes about homosexuals. This feigned behaviour is made easier by the fact, contrary to popular belief, the majority of male and female homosexuals cannot be identified by their physical appearance. Therefore, it is understandable that homosexual youth have a much higher depression rate and are up to four times more likely to attempt suicide.

4.3.3 Social factors

These social factors contribute to depression in adolescents. These factors are related to the socioeconomic status, environment cultural and education of the individual in the society.

4.3.3.1 Financial problems

The study findings showed that because of parent's unemployment, the majority of the depressed adolescents did not have the opportunity to achieve their dream. Some of them are staying at home not studying because of financial problem. Some of them worked and supported their parents to earn a living in their young age hence, took a role bigger and not meant for them. Affording a decent three-square meal was a problem too as they were in poor socio-economic class.

“There is no finance to continue my university education as a result of loss of income by my parent”.

“There is no food in the house due to my parent's financial problem. My parents do not have money to take care of me”.

“Because of poverty, I support my mother in her daily cooking business. This makes me to sleep very late and wake up very early in the morning to help her to cook. It depresses me when I see my friends going to school and I am in the market stall selling foods”.

These findings corroborate with the studies conducted by Oderinde et al., (2018:199) IdoEkiti, and South West Nigeria who explained that socioeconomic class was also observed to be significantly related with depression in adolescents. Students from lower socioeconomic status were six times more likely to be depressed than students from the upper socioeconomic status. This has also been observed in other similar studies conducted in other parts of the world where they found that poverty, difficulties in meeting daily necessities might persuade an adolescent to compare himself with others, and this situation increased an adolescent's predisposition to depression.

This current study was further supported by the studies conducted by Barhafumwa et al., (2016:269) who report that there was a correlation between food insecurity and depression among young South Africans with low social and economic support. The association between food insecurity and depression may, in part be owing to physical consequences associated with food insecurity including a reduction in meal frequency,

lower access to nutritionally beneficial foods as well as the emotional toll such as hopelessness and despair potentially associated with a lack of control over food access. As a result, adolescents, particularly those who may find themselves as parents at a young age, may become involved in behaviours, which increase their risk of HIV, such as transactional sex as a means to supplement access to food and other necessities.

4.3.3.2 Cultural influence (occult involvement)

The study finding revealed the participants who had contact with satanic and occult rituals explained that it triggered off psychological reactions and became more vulnerable to depression. They became emotionally disturbed after being involved in occult activities. In a quest for money making in Nigeria, some people have also indulged in the occult/ritual killing of the youths for sacrifice.

“Others around me believed that my depressed mood is normal and that nothing is wrong with me”.

“My paternal uncle wanted to use me for a money ritual killing. He nearly initiated me if not that I cried out loud and ran for my life. I am still having the flashback of the site of the occult altar. I have been physically weak, emotional unbalanced and severely depressed after the encounter with the altar”.

Šram (2017:92) argues that occult subjection or involvement has often been found to be the root cause of mental and emotional problems. There are several examples known in the psychic community where dabbling in the occult can be detrimental to one’s spiritual, psychological, and physical health. Both psychiatrists and psychologists recognise the adverse effects of the occult activities upon the mind. A belief that evil spirits could cause mental illness has been observed in many cultures and religions.

The findings of the research conducted by Šram (2017:102) confirmed that the satanic/occult subjection could be the cause of mental and emotional problems. Those who become involved in occultism could become mentally oppressed or enslaved by inexplicable forces, and one could suffer from depression and psychopathic disorders.

The current study was also in support with the studies conducted by Burns and Roos (2016:497) explained that depressed adolescents have poor school performances because of cultural influences in the society.

This was also in agreement with the studies conducted by Ojua, Ishor and Ndom (2013:181) who found that mental illness was attributed to various causative factors in many parts of Nigeria. Nevertheless, all seem to explain mental illness as an affliction on man from the spirit world. In some parts of the country, people suffering from mental illness are seen as being the architect of their misfortune. They were seen as being serving the consequences of one evil or the other they have committed in the time past

4.3.3.3 Loneliness

The study findings revealed that most depressed adolescents who were lonely felt disconnected from others for no obvious reasons. They did not want communication with those around them. This could be because of low cognitive functioning. Some of the depressed adolescents were mentally ill and did not see the need to interact with others around them. Some were lonely because of loss of their loved ones and having social anxiety.

“I am feeling helpless and isolated at all time. Feeling abandoned by my own people/family even when they are round me.”

The current study’s findings resonate with the study conducted by Kooverjee-Kathard (2018:25) who highlights that loneliness typically includes a negative response to being isolated. The people who experience loneliness are not always without friends as they may have many people around them. They felt emotionally disconnected from their loved ones and other people around them. It could also be seen as a secondary

consequences of certain psychiatric diagnoses e.g. depression; anxiety etc. Numerous schoolchildren expressed an increased sense of loneliness. Many cases revealed that owing to their generalised anxiety they automatically believed that no one would be their friend so they tend to shy away from actively trying to make friends.

4.3.3.4 Failure of examination

The study finding showed that some of the participants became depressed owing to the failure of a class. They had no concentration in their studies and even when they managed to read for the examination. They still failed.

“I have trouble in concentrating with my studies, even when I managed to read I forgets what I have read.”

“I feel bad about repeating a class, seeing my peers in a class above I depressed me because some of them laughed at me.”

The current study was in concurrence with the studies conducted by Nalin (2018:2) who stated that depending on the school, an adolescent goes to, the pressure to get good grades and complete assignments can be immense. In fact, some movies, like *Dead Poets Society*, have portrayed the significant amount of stress that adolescents have to endure. With enough stress from classes, grades, and getting into college, depression can start to set in for an adolescent. If you are expected by parents and teachers to excel and you are not, depression can easily set in.

The current study was supported by the studies conducted by Harsha (2017:8) further found that academic stress occurred with anticipated thoughts of a failure in academic performances. This tagged along with the awareness of the possibility of academic failures or poor grades. The thoughts and awareness were subsuming which led towards a mental distress. Situations and events, which take place at schools such as tests, grades, studying, played a consequential role for stress.

4.3.3.5 School factors

The study findings showed that many adolescents were depressed because of the school system that was not functioning effectively. The lecture halls were being changed randomly because of the weather condition. They also complained of walking a long distance back and forth to school, which makes them tired, and, not concentrating on their lectures. There was no school shuttle bus in place to help the student to reach their various destinations for lectures.

“School system functioning is not well scheduled; lecture halls are being changed randomly, walking long distance to the lecture hall. No arranged transport system to the lecture venues.”

The below comments from the participants showed that school stress in adolescents arose owing to their personal demands and their inability to meet these demands. It was evidenced by the financial problem accompanying studying and not been able to reach their goals.

“Combining my education and petty business is very difficult. The stress of running both is too much for me. I have to wake up early and open my shop in the market and from there to my lecture halls. Sometimes the lecture halls are changed and I have to make a means to reach there before the lecturer starts. I cannot stop my business because it pays my university school fees.”

This was in agreement with the study conducted by Harsha, (2017:7) who portrayed that stress exists from the change in an individual's thinking and their lifestyle nowadays. Stress was believed to be caused by the various problems at school, financial problems, family problems and problems in their surroundings. Adolescents also experienced stress because they were sometimes trapped between making decisions, which was to follow rules and orders or to be free and discover the world, as they should.

The study findings made known that the adolescents especially the junior students were bullied by the senior students because the senior students have more power

than they do. The junior students were made to do various tasks in the school for the senior students.

These include maltreatment, running of errands, washing and ironing their clothes, fetching water etc. Hence, the junior students will not have time for their studies because of these tasks.

“I was bullied by senior students in the boarding school making me not to have time for my studies.”

This was in alignment with the studies done by Boyes and Cluver (2014:847) as they defined bullying as repeated acts of aggressive behaviour intended to cause harm, and it is usually characterised by an imbalance in power between the perpetrator and the victim.

This was also in agreement with the studies conducted by Kim et al., (2015:9) explained that bullying has been recognised as an independent risk factor for depression in high-income countries and more recently is emerging as a risk factor in resource-limited settings. In their study conducted in Malawi, 11% of young adolescents are reported being bullied for taking ART (antiretroviral therapy) medications.

The current study was further supported by the studies conducted by Kim, Park, Park, et al., (2018:5) who stated that adolescents who are different from their peers in terms of behaviour or appearance are more likely to be bullied. For example, adolescent cancer survivors, who may experience changes in appearance or body image, can have difficulties with socialisation.

4.4 CONCLUSION

This chapter dealt with the research results and discussion of research findings. These research results and discussion of research finding were analysed and compared with the other previous studies. It was apparent that the study's findings that factors contributing to depression in adolescents admitted in a psychiatric hospital were many and they were linked to each other. Three themes were identified and these were biological, psychological and social factors. The psychological factors had the highest

responses in the factors contributing to depression in adolescents admitted in a psychiatric hospital. This was followed by social factors and lastly biological factors. The next chapter will focus on the conclusions of the study, limitations, recommendations and proposed future studies to be carried out.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS, LIMITATIONS AND CONCLUSIONS

5.1 INTRODUCTION

This chapter gives a summary of the whole study based mostly on the summary and interpretation of the research findings. The findings were discussed with reference to previous studies done in the same area. Conclusions were drawn based on these findings. The researcher also discussed the recommendations and limitations of the research study.

5.2 RESEARCH DESIGN AND METHOD

The researcher used a qualitative descriptive study in exploring the factors that contribute to depression in adolescents aged between 11-19 years admitted in a psychiatric unit. The qualitative descriptive study gave the evidence that helped to answer the research questions of the study. Face-to-face interviews were used to collect data and content analysis was used to analyse the collected data.

5.3 SUMMARY AND INTERPRETATION OF RESEARCH FINDINGS

The study results and findings showed that there are many factors contributing to depression in adolescents admitted in a psychiatric unit. These factors were classified into themes as biological, psychological and social factors. These factors were found to be interrelated to each other.

5.3.1 Biological factors

They explained that they used drugs and alcohol to forget their problems and ended up being drunk with low mood. They had no control over these substances, as their lives were dependent on them.

The current study suggests that they were scared of death and suffering from effects of HIV. Some of them have witnessed the death of their infected friends and relatives. The physical effects of HIV infection because of body infirmity led to body image disturbance. Some of them explained that they felt depressed each time they remembered that this HIV virus still exists in their body, as there is no permanent cure yet and so many other people have died because of it.

The findings also showed that owing to some of them were tired and weak because of being constantly admitted in the hospital. Hence, they had developed the feeling of being different from their peers and being a burden to their family members and friends.

Those participants with physical disability did not have a proper walking aid such as wheel chair, crutches, walking sticks and others and they easily got tired and weak hence leaving them with a feeling irritability and depression about their physical condition. They complained that getting a support with their physical disability was very difficult, as Nigerian government does not cater for people with disabilities. Most of them were dependent on their family for a living while those whose family cannot afford a decent meal ended up begging for alms in the public places. Disability was known to be a risk factor for depression. The relationship between physical disabilities and depression were observed in the current study. This could be because of the stressful condition that the disable people found themselves.

This study showed that obesity could be attributed to the genetic make-up in the family and the dietary patterns as most adolescents from rich family preferred junk and unhealthy foods. Some of the participants explained that they could not walk a long distance like their peers because they felt exhausted and felt like fainting after such an exercise. The affected adolescents experienced a loss of self-esteem as they felt like abnormal people when they were together with their peers. They felt worse about

things such as their looks, their capacities and their worthiness. Some of their peers laughed at them because of their big body size.

The study indicated that hormonal imbalances played a vital part in the emotional state of adolescents believed that female gender has a greater propensity to develop depression owing to drastic hormonal changes in puberty, in each menstrual cycle, in the post-partum period, and in menopause.

5.3.2 Psychological factors

Those adolescent who had a loss of their close relatives or friends were severely depressed living in an unsupportive households or where a loving, caregiver relationship was lacking.

The study indicated that loss of relationship between adolescents led to all sorts of feelings and thoughts that might in turn contribute to depression.

Stress had a major contribution to depression in the adolescent mostly from post-traumatic stress adolescents feel scared thinking that their life is still in danger and had no control over what is happening around them. They kept on having memories or flashback of their traumatic events and have stress when something reminds them of the events. This includes emotional and family financial stress.

The study findings also showed that sexual abuse victims have close relation with the family making it difficult to verbalise their abuse. They also have the fear of reporting earlier because they do not want to be judged by others.

The current study showed that clinical depression has been related to other mental illnesses such as anxiety and panic disorders. Some of the depressed adolescents were previously diagnosed of anxiety disorder.

Family problems such as conflicts and polygamy contributed to their depression as the study showed that some of them coming from a polygamous family structure did not know peace, as there were always problems and conflicts in the family.

The study showed that divorce was a contributing factor to depression with the evidence that adolescents from separated/divorced families tend to be more depressed than their same aged peer from intact families was. This could be, because

such adolescents from divorced homes tend to have less intimate relationship with their parents.

The study findings showed that those participants with poor early attachment lacked the love and trust of a caregiver especially the mother. They did not experience warmth and loving affection, could not listen and communicate openly with the peers, lacked happiness and shows the feeling of anxiety, aggressive and withdrawn behaviour in their lives

The study depicted that those adolescents who have different sexual orientation were always feeling anxious and scared to socialise with their fellow adolescents. Some of them took comfort in social media where they have access to communicate with people of their like. They also experienced loss of self-esteem, as they no longer feel that they were a normal human being. Some of the depressed adolescents had a fear of rejection, hostility and being discriminated by others.

5.3.3 Social factors

Poverty is a big challenge in Nigerian communities. The study showed that because of parent's unemployment, the majority of the depressed adolescents did not have the opportunity to achieve their dream. Some of them are staying at home not studying because of financial problems. Some of them work and support their parents to earn a living in their young age hence, taking a role bigger and not meant for them. Affording a decent three-square meal was a problem too as they are in poor socio-economic class.

The study revealed the adolescents who had contact with satanic and occult rituals explained that it triggered off psychological reactions and became more vulnerable to depression. They became emotionally disturbed after the occult involvement. In a quest for money making in Nigeria, some people have also indulged in the occult/ritual killing of the youths for sacrifice.

The study findings revealed that most depressed adolescents who were lonely feel disconnected from others for no obvious reasons. They did not want communication with those around them. This could be because of low cognitive functioning. Some of

the depressed adolescents were mentally ill and did not have the desire to interact with others around them. Social anxiety and loss of their loved ones also contributed to their loneliness and depressive state.

Failure of an examination also contributed to their depression as shown by the study. They had no concentration in their studies and even when they managed to read for the examination, they still failed. Depending on the school, an adolescent goes to, the pressure to get good grades and complete assignment could be huge.

The study showed that many adolescents were depressed because of the school system, which was not functioning effectively. The lecture halls were being changed randomly because of the weather condition. They also complained of walking a long distance back and forth to school which made them tired and not concentrating on their lectures. There was no school shuttle bus in place to help the student to reach their various destinations for lectures. Stress was believed to be caused by the various problems at school, financial problems, family problems and problems in their surroundings.

The study findings revealed that the senior students bullied the adolescents especially the junior students because the senior students have more power than they do. The junior students were made to do various tasks in the school for the senior students. These include maltreatment, running of errands, washing and ironing their clothes, fetching water etc. Hence, the junior students could not have time for their studies because of these tasks. Bullying was also seen among adolescents who are different from their peers in terms of behaviour or appearances were more likely to be bullied. This was observed in depressed adolescents who were HIV-positive and diabetic.

5.4 RECOMMENDATIONS

The purpose of this study was to investigate the contributing factors to depression in adolescents admitted in Federal Neuropsychiatric Hospital Enugu, Nigeria. Various recommendations were noted during the analysis of the study findings. These recommendations were summarised as follows:

5.4.1 Comprehensive health services including mental healthcare

The principle of integrating and collaborative care, which includes a multi-professional approach, structured management, scheduled patient follow-up and enhanced inter-professional and enhanced inter-professional communication, should be adhered to in the care of depressed adolescents (WHO, 2017:23).

Educating the depressed adolescents on depression and good symptom management will allow them to make good decisions about all aspect of treatments and their future life. In addition, they need to be taught to become an effective advocate for themselves so that they can access the services and treatment they need. More importantly, they should take their medications (mood stabilisers and anti-depressants) as prescribed by the psychiatrist. It is also essential that they be reminded of constant follow-up visits to the mental healthcare clinics for routine check-up and response on their treatments.

Therapies such as cognitive behavioural therapy (CBT), interpersonal therapy (IP), or problem-solving therapy (PST) for those adolescent with dual diagnosis and post-traumatic stress disorder is very important. This therapy teaches helpful ways to deal with problems. It also provides tips for better sleep, control thought pattern, diet, and exercise habits. Moreover, it helps people to deal with guilt, shame and other feelings about a traumatic event.

There should be proper treatment for chronic diseases such as HIV, diabetes mellitus, Asthma etc. and education to reduce the stigma caused by these diseases. For example, depressed adolescents suffering from diabetes and other chronic diseases need to be taught about their illness, treatment and important lifestyle changes that support recovery. Developing a sense of responsibility such as eating well, avoiding harmful behaviours and timeously taking of prescribed medications by the treating doctor. Obese adolescents to eat healthy diet exercise often and develop a good sense of positive self and body image.

5.4.2 Education and training of more health professionals

The government should train more health professionals including more clinical and addiction counsellor, social workers, occupational therapists and psychologists for

adolescents' health care, as they need to give them a listening ear and establish a mutual relationship. This is to ensure compliance with counselling sessions with the adolescents. They should consider their worldviews and ensure that they feel heard and understood to help them to see the importance of change especially the bad habits e.g. drug and alcohol abuse.

Individual and group psychotherapy can give the adolescents an opportunity to talk about the stresses that triggered to their illness as well as the challenges they have with mental illness.

5.4.3 Financial assistance of adolescents

There should be payment of scholarships to help adolescents from the low socio-economic background to get the quality of education they desired. The country's economic systems need to be improved by the government. Adolescents with chronic disabilities should receive social support in form of monthly grant.

Companies need to help in the supply of foodstuffs to the families who cannot afford to feed themselves due to poverty and lack of/ low parental income.

Early career development of all the citizens including the adolescents. Crafts making and other arts to be introduced in the schools and colleges as this will help them to be self-employed and independent on others for financial needs.

Government to take over the study cost of all children and adolescents who lost their parents and cannot continue schooling because of their parental/guardian death.

5.4.4 Family involvement

Positive and lovely family environment needs to be created in the family. Adolescents need to be motivated to speak up about their eminent problems, have a positive and important view of future, world and themselves.

Counselling of the adolescents and their family members plays an important role. Issues such as psychosocial and family stressors may precipitate depressed mood

and dealing with the individual adolescent as an entity. Counselling can help to ensure better compliance with the prescribed anti-depressants. Adolescents should be allowed to get enough rest and sleep to reduce their academic stress. Other family members need to take a share to support the adolescent who has lost a parent or relative to avoid emotional breakdown and stress.

Improvement and reinforcement of parent/ child relationship in the family is needed to prevent poor early attachment and to reduce conduct/ behavioural problems in the adolescents. The mental health specialist needs to engage and build rapport with parents and care givers to re-establish attachments. Parents need to be educated on introducing appropriate boundaries such as, respect, taking turns, sharing and modelling among their children.

Families should have good spiritual back up that encourages positive mentality and development of its members.

Family head needs to start writing the legal will that will help in adequate allocation and sharing of family properties. This will prevent family conflicts because of property problem. In a situation where a will was not written, the ward councilor or the head of the town needs to assist in equal allocation of properties and wealth among the family members.

5.4.5 Community outreach programmes

The community members need to be given information about depression, its symptoms, signs, prevention and the serious consequence of untreated depression. This will assist them to identify adolescents with depressed moods and send them to the clinic for assessment and treatment. The community need to support the families in dealing with depressed adolescents by listening to their problems without judging them and giving reassurance.

Stigmatisation and discrimination of people with mental illness need to be stopped in order to maintain their mental status and quality of their life. Barrier to the use of mental healthcare services is necessary to be removed. These barriers are lack of

confidentiality, fear of stigmatisation, and concerns that no one will understand their own problems and lack of time to visit the mental health care clinic.

Community outreach/ mobilisation programmes such as mental health awareness programme, putting a stop to drugs and alcohol abuse by the young children and adolescents to be encouraged and supported by all. Health education should be given to stop the use of alcohol and illicit drugs in the community and schools as they contain chemicals, which cause an imbalance in how the brain works. This can be done via mass media educational entertainment and social media.

Self- help and support groups to be created so that the depressed adolescents can join and benefit from their support. In this support groups, they hear challenges they are all facing and get suggestions on how to deal with them.

5.4.6 Department of Education

All schools need to have a full school health programme with a school nurse who is always on duty to do a complete examination of the adolescents who presented with poor school performance and make appropriate referrals to the community clinic or government hospitals for further assessment and management.

Schoolteachers need to report any change in any adolescent mood in the classroom and follow up adequately.

School authority should put an end to bullying in the school environment as it has an adverse effect on the affected school-going adolescents. Boarding school's housekeepers or house parents need to ensure that the students do not bully each other.

Mental awareness programme about depression to be extended to schools and at a regular basis. There should be a written policies or protocols that can be provided to assist schoolchildren observed with depression to be referred to the necessary mental health clinics.

Tertiary institutions to have a stable school environment (lecture halls) and free transport system within the school environment. This is to reduce the stress of walking a long distance between one lecture and other by the school-going adolescents.

5.4.7 Review of country's policies and legislation

The government should review the existing law that caters for the wellbeing of all adolescents to protect the adolescents from been bullied by others, regulation of supply and use of drugs in the society. They should also enforce laws that will protect children and adolescents from been sexually abused or molested and consequence of violating against such laws to be communicated for better abiding by the citizens. They should also design and implement policies, which can assist to prevent, identify early, and treat depression among adolescents.

Genders equality awareness campaigns need to be done in schools and communities. Hence, this will help to reduce bullying and victimisation among adolescent boys and girls. Adolescent girls need to be empowered that they are not different from adolescent's boys in relation to power and rights in the society.

Government lawmakers need to review and implement legislation that will protect those adolescents with a different sexual orientation e.g. homosexuals, lesbians etc. in the society. This will enable them to feel that they belong to the present society and not isolate themselves from others.

5.5 CONTRIBUTIONS OF THE STUDY

The research study based on the factors contributing to depression in adolescents admitted in a psychiatric unit. These factors were recognized and the researcher gave recommendation. The researcher identified the contributions of the study below.

The study will be useful to adolescents who would be motivated to speak out about their health condition (depression). It will also help them to talk about it with their counterparts hence creating awareness about treatment and seeking for appropriate help.

The findings will equip the researcher with the knowledge of how to manage depression in adolescents. The study will reduce the incidence of depression among

adolescents; improve their life towards attainment of adulthood. The findings will also help the health professionals (multidisciplinary team members) in modifying the treatment of depression (intervention strategies) having known the contributing factors. It will also help the policy makers while reviewing the treatment modalities.

The study will validate existing knowledge of adolescent depression, fill in gaps in the current knowledge base on previous studies in contributing factors of adolescents' depression carried out both nationally and globally and finally generate new knowledge to be added to the existing body of knowledge.

This study is very important because there are many adolescents being diagnosed of depression and the contributing causes of their depressive state needs to be identified and dealt with. This study will help the clinicians in the hospital to develop an open, trusting relationship with adolescents, identify their problems, develop a therapeutic relationship, make better decision, offer practical advice and, when appropriate, encourage the adolescents to accept a referral to a specialised care (Levy 2014:1).

The psychiatric multidisciplinary team members will find the study essential as it will help them to treat the depressed adolescents holistically; hence giving counselling services to them in order to avoid the complications of depression, which is suicide etc. Educational booklets and pamphlets about depression in adolescents, causes/ contributing factors of depression, treatment, prevention and complications of untreated depression can be developed and disseminated to all the adolescents in the school and the community to create awareness.

All the youths need to be sensitised and empowered to face stress and report appropriately to the right channel when they are not coping to avoid the development of depression.

The current study will help the government of the country to make an amendment in the country's legislature concerning the general health of the adolescents. This can be achieved by introducing laws and policies that will ensure the general welfare of all the adolescents. Hence, adolescent clinic can be opened in order to cater for their stress, mental problems and other psychosocial problems.

The Department of Education may gain from the findings of this study by ensuring that the adolescents' rights are not abused in the school environment. Hence, the department should make sure that the school environment is not adverse for their

growth and physical, social, and mental developments. The study's findings will further help them to build the knowledge base.

The Department of Health will also gain from the study findings, as it will help them to collaborate with the educational department in order to strengthen their existing curriculum on guidance and counselling module. Psychological care needs to be initiated and given to all the adolescents observed with challenges.

5.6 LIMITATIONS OF THE STUDY

Some of my participants being a psychiatric patient did not want to go into more details as they were still in acute phase of their depressive episode. Hence, they were not forced to talk more to avoid emotional breakdown even though counselling services were involved and available.

The research participants used in the study were the ones who agreed, volunteered, and communicate effectively in English language. The other depressed adolescents who were admitted but could not speak English language were not selected even though the researcher is fluent with the local languages. This was done to avoid interpretation/translation errors. The study was limited to the volunteered adolescents who are between the age of 11 and 19 years.

Admitted adolescents who did not consent to partake in the research study or those with parents who did not consent for their children to partake in the study were also limited to partake in the study. They would have also provided the researcher with more important idea.

Since this study is qualitative, its findings may not be easy to generalise to reach conclusion owing to the small sample size (30 participants) and non-random sampling technique used by the researcher (Joubert & Ehrlich 2007:326).

Since the current study was based in admitted adolescents in Federal Neuro Psychiatric Hospital Enugu Nigeria, the tendency that the study will give a different

result in another psychiatric hospital is possible. Hence, the study's findings cannot be generalised to the whole of Nigeria or other countries in the world.

Almost all face-to-face interviews are prone to bias owing to over or under reporting. Participants may be anxious because answers are being recorded and may provide socially acceptable responses to avoid being discriminated.

Another limitation is that the researcher is still a novice in conducting a research study. Hence, she could have done better than this. The current study is a learning curve for the researcher's future studies.

5.7 ADDITIONAL RESEARCH

The researcher recommends that further study to be done on the incidence and prevalence of depressed adolescents in the general population. More studies to be done in contributing factors to depression in adolescents admitted in all age groups including the children below 11 years.

Another study needs to be done on representative population of admitted adolescents on factors contributing to depression. Another study to be done on the future of adolescents diagnosed of depression and their prognosis. This study may also need to be replicated in other African countries with different demography like Libya, Tunisia, Morocco and South Africa. A mixed method, which includes three phases, can be used in future. A study can be conducted on detection of depression in the schools using Beck inventory scale in order to start early treatment and complications.

5.8 CONCLUSION OF THE STUDY

The purpose of the study was to investigate the contributing factors to depression in adolescents admitted in Federal Neuropsychiatric Hospital Enugu, Nigeria. The study findings showed that the factors contributing to depression in adolescents are carved in the biological, psychological and social factors. These factors are inter-related to each other. Since there is high rate of suicide among adolescents, the study also

recommends that early detection and treatment of depressed adolescents need to be done to avoid the complications of adolescent depression.

LIST OF SOURCES

Alia Butler (2017). Effects of teenage Depression. Livestrong.com

Aluh D.O, Anyachebelu O.C, Anosike C & Anizoba E.L (2018). Mental health literacy: what do Nigerian adolescents know about depression? International Journal of Mental Health systems. BioMed Central Publishers. <https://doi.org/10.1186/s13033-018-0186-2>.

American Psychiatric Association (2013), *Diagnostic and Statistical Manual of Mental Disorders* (5th. Ed.), Arlington; V A: Author. American Psychiatric Publishing, pp. 160-168.

Avenevoli S, Knight E, Kessler R.C. & Merikangas.K.R. (2008). *Epidemiology of depression in children and adolescents*. In J.R.A. Abela & B.L. Hankins (Eds.), *Handbook of depression in children and adolescents* (pp. 6-32). New York: Guilford Press.

Bach, JM & Louw, D (2010). Depression and exposure to violence among Venda and Northern Sotho adolescents in South Africa. In *African journal of Psychiatry*, 13:25-35.

Bansal. V, Goyal.S, Srivastava.K. (2009). Study of prevalence of depression in adolescent students of a public school. *Industrial Psychiatric Journal*, 18(1), 43-46.

Bantjes J.R, Kagee, A, McGowan T & Steel H. (2016). Symptoms of posttraumatic stress, depression and anxiety as predictors of suicidal ideation among South African university students. *Journal of American College Health*. Routledge as Taylor & Francis Group. <http://dx.doi.org/10.1080/07448481.2016.1178120>

Barhafumwa,B., Dietrich.J, Closson.K, Samji.H,Ces con.A, Nkala.B, Davis.J, Hogg.R, Kaida.A, Gray.G, Miller.C,& Bophelo B Adolescent, (2016). High prevalence of depression symptomology among adolescents in Soweto, South Africa associated with being female and cofactors relating to HIV transmission. *Vulnerable Children*

and Youth Studies. Vol. 11, No. 3, 263-273. published by Informa UK Limited, trading as Taylor & Francis Group. <http://dx.doi.org/10.1080/17450128.2016.1198854> .

Barlow. H. David & Durand Mark (2012). *Abnormal Psychology. An Integrative Approach*. 6th Edition. pp 220 International Edition. Wadsworth. Cengage Learning USA.

Baron E.C, Davies. T & Lund. C (2017). Validation of the 10-item Centre for Epidemiological Studies Depression Scale (CES-D-10) in Zulu, Xhosa and Afrikaans populations in South Africa. *BMC Psychiatry*, BioMed Central Publishers South Africa. DOI 10.1186/s12888-016-1178-x

Baumann S.E (2015). *Primary Care Psychiatry-A practical guide for Southern Africa*. 2nd Edition. Juta & Company (Pty) Limited. ISBN-978-0-70219-7987.

Bhatia MD (2007) *Childhood and Adolescent Depression*. Creighton University, Department of Psychiatry. *American Family Physician*.

Bennett, S., Coggan, C., & Adams, P. (2003). Problematizing depression: Young people, mental health and suicidal behaviour. *Social Sciences and Medicine*.

Bernard C. B (2013) *Research Methods- A tool for life* 3rd Edition. Pearson Education, USA.

Blom.E.H, Ho. T.C, Connolly. C.G, LeWinn. K.Z, Sacchet, Tymofiyeva. O, Weng.H. Y & Yang.T.T (2015). The neuroscience and context of adolescent depression. *Acta Paediatrica* 2016 105, pp. 358-365. ISBN 0803-5253. DOI:10.1111/apa.13299.

Botma Y, Greeff M, Mulaudzi FM and Wright SCD (2010) *Research in Health Sciences*. 2nd Edition. Pearson Education South Africa, Cape Town.

Boyes M.E, & Cluver L.D. (2014). Relationship Between Familial HIV/AIDS and Symptoms of Anxiety and Depression: The Mediating Effect of Bullying Victimization in a Prospective Sample of South African Children and Adolescents. *Springer Science+Business Media New York. Youth Adolescence* (2015) 44:847-859. DOI 10.1007/s10964-014-0146-3.

- Brink H, Van Der Walt C & Van Rensburg G (2007), *Fundamentals of Research Methodology for Healthcare Professionals*. 2nd Edition. Juta & Co. Ltd. Cape Town.
- Brink H, Van der Walt C, Van Rensburg G (2012). *Fundamentals of research methodology for Healthcare Professionals*. 3rd Edition. Juta & Company Ltd, Cape Town, South Africa.
- Brink H, Van der Walt C, Van Rensburg G (2018). *Fundamentals of research methodology for Healthcare Professionals*. 4th Edition. Juta & Company Ltd, Cape Town, South Africa. ISBN 978-1-48512-468-9
- Burningham K.L (2016). The Relationship between the Poor Parenting in Childhood and Current Adult symptoms of Anxiety and Depression: Attachment as a Mediator. All Thesis and Dissertations.5861. <https://scholarsarchive.byu.edu/etd/5861>
- Burns, N & Grove, SK. (2011). *The practice of nursing research: conduct, critique and utilization*. 5th Edition. St Louis, Missouri: Elsevier Saunders.
- Burns. J & Roos. L. (2016). *Textbook of Psychiatry for Southern Africa*. 2nd Edition. Oxford University Press Southern Africa Cape Town (Pty) Limited. ISBN-978-019-9046324.
- Casale. M, Wild. L, Cluver. L & Kuo. C (2014). Social support as a protective factor for depression among women caring for children in HIV-endemic South Africa. *Journal of Behavioural Medicine*. 38:17-27. Springer Science & Business Media. DOI 10.1007/s10865-014-9556-7.
- Chacon C (2010). Depression: The role of cultural factors and perception of treatment. Master's Theses. 4000. Faculty of the Department of Psychology San Jose State University United State. UMI Dissertation Publishing US 1484358. http://scholarworks.sjsu.edu/etd_theses/4000
- Chang. C, Kaczurkin. A.N, McLean. C.P & Foa. E.B (2017). Emotion Regulation is Associated With PTSD and Depression Among Female Adolescent Survivors of

Childhood Sexual Abuse. Psychological Trauma: Theory, Research, Practice, and Policy. Vol. 10, NO.3, 319-326. American Psychological Association.
<http://dx.doi.org/10.1037/tra0000306>

Chinawa. J.M, Manyike. P.C, Obu. H.A, Aronu. A.E, Odutola. O, & Chinawa. A.T (2015). Depression among adolescents attending secondary schools in South-East Nigeria. *Annals of African Medicine*. Volume 14, Issue 1, pg 46-51. DOI: 10.4103/1596-3519.148737.

Choi. K.W, Sikkema. K.J, Velloza.J, Marais. A, Jose. C, Stein. D.J, Watt.H.M & Joska. J.A (2015) Maladaptive coping mediates the influence of childhood trauma on depression and PTSD among pregnant women in South Africa. Published by Springer-Verlag Wien. *Arch Women Mental Health* (2015) 18:731-738. DOI 10.1007/s00737-015-0501-8.

Christine T & Allan W (2009). Communicating effectively with youth about depression: A literature review. Research Report for Ministry of Health. March 2009. Phoenix Research New Zealand.

Concise Oxford English Dictionary 2004 edited by Catherine Soanes and Angus Stevenson. 11th edition Oxford University Press Inc, New York

Cummings C.M, Caporino N.E & Kendall P.C. (2014) Comorbidity of Anxiety and Depression in Children and Adolescents: 20 Years After. Published in final edited form as *Psychol Bull*. NIH Public Access. 2014 May; 140(3):816-845. Doi10.1037/a0034733

De Gruyter (2017). Occult practices feed both depression and psychopathy. Retrived 23 November 2018 from <https://medicalxpress.com/news/2017-01-occult-depression-psychopathy.html>

De Souza Duarte N, De Almeida Corrêa L.M., Assunção L, R., De Menezes A.A, De Castro O.B, & Teixeira. L.F. (2017). Relation between Depression and Hormonal Dysregulation. *Open Journal of Depression*, 6, 69-78. Scientific Research Publishing Inc. <https://doi.org/104236/ojd.2017.63005>

- De-la-Iglesia, M & Olivar, J. (2015). Risk Factors for Depression in Children and Adolescents with High Functioning Autism Spectrum Disorders. Hindawi Publishing Corporation. The Scientific World Journal. Volume 2015. <http://dx.doi.org/10.1155/2015/127853>
- De Wet M.W. (2016). The Young Child in Context: A Psycho-social Perspective. 2nd Edition. Van Schaik Publishers Pretoria, South Africa. ISBN: 978-0-627-033711.
- Del Vecchio P. (2018) The Good News About Preventing Adolescent Depression. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Rockville, MD, USA. Published online by CrossMark. <https://doi.org/10.1007/s11121-017-08607>
- Du Plooy-Cillers F, Davis C & Benzuidenhout R, (2014). Research Matters. Juta & Company Ltd Publishers, Cape Town.
- Elliot G.W (2015). Adolescents Aggression: The Gender Debate on Physical and Relational Violence. 1st Edition. Verity Publishers Pretoria. ISBN: 978-0-9946542-2-9/6
- Fatiregun, A.A. and Kumapayi, T.E (2014). Prevalence and Correlates of Depressive Symptoms among School Adolescents in a Rural District in South West, Nigeria. Journal of Adolescence, 37, 197-203. <https://doi.org/10.1016/j.adolescence.2013.12.003>
- Felinhofer. A, Kothgassner.O.D & Klier.C (2016). How to prevent depression? Current directions and future challenges in children with chronic medical conditions. Psychiatria Danubina, 2016; vol 28, No.4, pp 441-451.
- Gelaye B, Rondon, M, Araya.R, & Williams.M.A. (2016) Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle-income countries. HHS Public Access, Lancet Psychiatry. 2016 october ;3(10);973-982. Doi10.1016/S2215-0366(16)30284-X
- Gilbert, P (2009). *Overcoming Depression: A Books on Prescription Title*, Hachette UK

- Goodyear-Smith F, Martel, Darragh M, Warren J, Thabrew. H & Clark T.C (2017). Public Health Reviews. Screening for risky behaviour and mental health in young people: The Youth Chat programme. BioMed Central Publishers. DOI 10.1186/s40985-017-00681.
- Gouws E (2015) *The Adolescent*. 4th Edition. Pearson Holdings Southern Africa (Pty) Ltd Cape Town
- Gray, D E. 2009. *Doing research in the real world*. 2nd Edition. Los Angeles: SAGE.
- Haddad.M & Gunn.J (2011). Fast Facts: Depression. Epidemiology and Impact. 3rd Edition. Health press publishers.
- Harsha.P.P (2017). Family Environment and academic Stress as Predictors of Depression in Adolescents. Department of Psychology, School of Human sciences, Sikkim University India.
- Health, N.C.C.F.M (2010) *Depression in adults with a chronic physical health problem*. BrPsychological Society.
- Helman C.G (2007). Culture, Health and Illness. 5th Edition Hodder Arnold Publishers United Kingdom. ISBN 978 0 340 914 502.
- Joan.S. G & Kaite.Y (2015) Current Opinion in Psychology: Gender and Depression. Volume 4, August 2015, Page 53-60. Published by Science Direct Elsevier USA
- Jones. B. R, Thapar A, Stone. Z, Thapar A, Jones. I, Smith. D & Simpson.S. (2017) Psychoeducational interventions in adolescent depression: A systematic review. Patient Education Counselling. 2018 May; 101(5):804-816. Doi: 10.1016/j.pec.2017.10.015
- Joubert. G & Ehrlich. R (2007). Epidemiology: A Research Manual for South Africa. 2nd Edition. Oxford University Press Southern Africa (Pty) Ltd. ISBN 978-0-19-576277-8.

- Kamndaya. M, Pisa. P.T, Chersich.M.F, Decker, Olumide. A, Acharya.R, Cheng.Y, Brahmhatt. H, & Moretlwe S.D (2017). Intersections between polyvictimisation and mental health among adolescents in five urban disadvantaged settings: the role of gender. Open Access. BioMed Central Psychiatry. DOI 10.1186/s12889-017-4348-y.
- Khadija M, Muhammad I. A, Shazana R, Waqas A, Moon B& Yasir M (2017). *Article on Prevalence, Determinants and Treatment of Depression among Teenagers in Lahore, Pakistan*. Vol. 11, No. 1, Jan-Mar 2017
- Kim M.H, Mazenga A.C, Yu. X, Devandra. A, Nguyen. C, Ahmed. S, Kazembe. P.N & Sharp. C (2015). Factors associated with depression among adolescents living with HIV in Malawi. Open Access. BioMed Central Psychiatry. DOI 10.1186/s12888-015-0649-9.
- Kim.M.A, Park.J.H, Park. H.J, Yi J, Ahn. E, Kim.S.Y, ShinD.W, Park.M, Lim. Y.J, Park. E.S, Park.K.D, Hong.J.S (2018). Experiences of Peer Exclusion and Victimization, Cognitive Functioning, and Depression among Adolescent Cancer Survivors in South Korea. *American Journal of Orthopsychiatry*. Advance online publication. <http://dx.doi.org/10.1037/ort0000292>
- Kooverjee-Kathard Jasmin (2018). Loneliness: A Growing Public Health Issue. *Mental Health Matter*, Issue 3. Page 25-26
- Krans Brian (2016). Adolescent Depression. Medically reviewed by Timothy J. Legg, PhD, PMHNP-BC on 17 February 2016. Healthline Media.
- Kumar, R. 2014. *Research Methodology. A step-by –step for beginners*. 4th Edition. London: SAGE publishers.
- Lentoor G.A, Asante. K.O, Govender.K & Petersen. I (2016) *AIDS CARE*, Psychological functioning among vertically infected HIV-positive children and their primary caregivers. Vol. 28, No. 6, 771-777. Published by informa UK Limited. <http://dx.doi.org/10.1080/09540121.2015.1124979>

- Levenson J.C, Shensa A, Sidani J. E, Colditz J. B & Primack B. A (2016). The association between social media use and sleep disturbance among young adults. *Preventive Medicine*, 85, 36-41.
- Levy S (2014). *Overview of psychosocial problems in adolescents*, Merck Manual Professional Version. Merck & Co. Kenilworth, USA.
- Lifestyle Magazine (2017) Breaking the silence on suicide and depression. 38 Edition. Life.communications@lifehealthcare.co.za
- Lin L, Sidani J.E, Shensa A, Radovic A, Miller E & Colditz J.B (2016). Association between social media use and depression among U.S. young adults. *Depression and Anxiety*, 33, 323-331. <https://doi.org/10.1002/da.22466>.
- Louw, D.A. & Louw A.E. (2014). *Child & Adolescent Development*. 2nd Edition. Department of Psychology University Free State. Psychology Publications, Bloemfontein. ISBN: 978-0-086886-822-6.
- Maree.K. (2016). *First step in research*. Second Edition. Van Schaik Publishers. South Africa. ISBN 0978 0 627 03369 8
- Mark Tomlinson, Anna Grimsrud, Dan Stein, David Williams & Landon Myer (2009). The Epidemiology of Major Depression in South Africa Stress and Health study. *South African Medical Journal* 2009; May99 (5Pt 2): 367-373.

- Maxwell. S.D, Fineberg. A M, Drabick. D.A, Murphy. S. K & Ellman. L.M (2018). Maternal Prenatal Stress and Other Developmental Risk Factors for Adolescent Depression: Spotlight on Sex Differences. *Journal of Abnormal Child Psychology* (2018) 46:381-397. Springer Science & Business Media New York. doi: 10.1007/s10802-017-0299-0.
- Mayo Clinic Staff (2017) Teen Depression. Mayo Psychiatric Clinic. Mayo Foundation for Medical Education and Research (MFMER) Minesotta USA. www.mayoclinic.org/diseases-conditions/teen-depression/symptoms-causes/sy (accessed on 14th January 2018)
- Mbalo M.N, Zhang. M & Ntuli.S. (2017). Psychological Trauma: Theory, Research, Practice, and Policy. Risk Factors for Post-Traumatic Stress Disorder and Depression in Female Survivors of Rape. Vol.9. No.3. 301-308. American Psychological Association. <http://dx.doi.org/10.1037/tra0000228>
- McDonough-Caplan. H, Klein. N.D & Beauchaine T.P. (2018). Co-morbidity and Continuity of Depression and Conduct Problems from Elementary School to Adolescence. *Journal of Abnormal Psychology*. 2018, Vol. 127, No. 3, 326-337. American psychological Association. <http://dx.doi/10.1037/abn0000339>
- Meghan W (2013) Mental Health & Coping Blog. 10 Things that may cause Teenage depression. Canada. <https://mindyourmind.ca/expression/blog/10-things-may-cause-teenage-depression> (accessed on 14th January 2018)
- Mennen. F.E, Negriff. S, Schneiderman. J.U & Trickett. P.K (2018). Longitudinal Associations of Maternal Depression and Adolescents' Depression and Behaviours: Moderation by Maltreatment and Sex. *Journal of Family Psychology*, 2018, Vol.32, No.240-250. American Psychological Association. <http://dx.doi.org/10.1037/fam0000394>
- Mental Health America (2017) Annual Conference Alexandria. www.mentalhealthamerica.net/conditions/depression-teens (16th accessed February 2017)

- Mouton J (2015). *How to succeed in your Master's and Doctoral Studies. A South African Guide and Resource Book*. 1st Edition. Van Schaik Publishers. South Africa. ISBN 0978 0 627 02484 9
- Naidu Kelvin (2017). Metabolic syndrome in Psychiatry. Symposium on interface between medicine and psychiatry-mental health multi-professional approaches. 5th annual GMPP symposium, 2017
- Nalin Jeff (2018). Reasons Why Teens Might Get Depressed? Psychology Today. Paradigm Malibu, USA. <https://paradigmmalibu.com/reasons-why-teens-might-get-depressed> (Accessed on 4th April 2018)
- National Population Commission of Nigeria <https://www.population.gov.ng> and <https://www.citypopulation.de> (accessed on the 16th August 2018)
- Newcastleadvertiser.co.za. (local news, 06:09AM 10th April 2017)
- Newman, AE. (2017). Poor attachment and the socioemotional effects during early childhood. Electronic Thesis, Projects, and Dissertations.554. CSUSB Scholar Works <http://scholarworks.lib.csusb.edu/etd/554>
- Nigerian 2006 population and Housing Census-PDF (<http://www.population.gov.ng/images/Priority%20table%20Vol%204.pdf>) priority table, Volume IV, population distribution by age and sex, State & Local government area (accessed on 16th August 2018)
- Oderinde. K.O, Dada.M.U, Ogun. O.C, Awunor. N.S, Kundi. B.M, Ahmed. H.K, Tsung. A.B, Tanko. S.T & Yusuff. A.A (2018). Prevalence and Predictors of Depression among Adolescents in Ido Ekiti, South West Nigeria. International Journal of Clinical Medicine, 9, 187-202. <https://doi.org/10.4236/ijcm.2018.93017>
- Ogundele.M.O (2018). Behavioural and emotional disorders in childhood: A brief overview for paediatricians. World Journal of Clinical Paediatrics. Vol 8; 7(1):9-26. DOI: 10.5409/wjcp. v7. i1.9. ISBN 2219-2808(online). Baishideng Publishers.

- Ojua T, A, Ishor. DG & Ndom, PJ (2013). African Cultural Practices and Health Implications for Nigeria Rural Development. international Review of Management and business Research. Vol. 2 Issue.1 March 2013. ISSN:2306-9007
- Parker. G, & Roy, K. (2001). Adolescent depression: a review. Australian and New Zealand Journal of Psychiatry, 35, 572-580.
- Peltzer. K, Szrek. H, Ramlagan. S, Leite. R & Chao L. (2015). Depression and social functioning among HIV-infected and uninfected persons in South Africa. AIDS Care, Routledge. Taylor & Francis Group Publishers. Vol.27, No.1, 41-46, <http://dx.doi.org/10.101080/09540121.2014.946383>
- Peterson. K, Togun. T, Klis. S, Menten. J, Colebunders. R (2012). Depression and Posttraumatic Stress Disorder Among HIV-Infected Gambians on Antiretroviral Therapy. AIDS Patient Care and STDs. Volume 26, No.10, 2012. Published by Mary Ann Liebert, Inc. DOI: 10.1089/apc.2012-0089
- Pietrangelo, A & Cherney K. (2017). The Effects of Depression in Your Body. Healthline Newsletter. www.healthline.com/health/depression/effects-on-body
- Polit, D. F & Beck, C.T. (2012). *Nursing research: Generating and assessing evidence for nursing practice*. New York: Wolters Kluwer.
- Pretorius. D, Mbokazi A.J, Hlase K.K & Jacklin L. (2012) Child Abuse: Guidelines and Applications for Primary Healthcare Practitioners. 1st Edition. Juta & Company Ltd.South Africa. ISBN: 978-0-70218-659-2
- Privitera J. Gregory (2016). Research Methods for the Behavioural Sciences. 2nd Edition. Sage Publishers, USA.
- Rankin.J, Mathews. L, Cobley. S, Han.A, Sanders.R, Wiltshire.H.D & Baker.J.S (2016). Psychological consequences of childhood obesity: psychiatric co-morbidity and prevention. Adolescent Health,Medicine and Therapeutics 2016:7 125-146. Dove Press publisher.

- Robertson. B, Allwood.C & Gagiano.C (2015). Textbook of Psychiatry for Southern Africa. 1st Edition. Oxford University Press Southern Africa (Pty) Ltd. ISBN 978 019 571926 0
- Rohde. P, Lewinsohn. P.M, Klein. D.N, Seeley J.R & Gau. J.M (2013). Key Characteristics of Major Depressive Disorder Occuring in Childhood, Adolescence, Emerging Adulthood and Adulthood. Oregon Research Institute, Eugene and Department of Psychology, Stony Brook University. Clinical Psychological Science 1(1) 41-53. Published by The Author(s). sagepub.com/journalsPermissions.nav. DOI: 101177/2167702612457599.
- Sanno E.Z, Jenine S, & Anneliese R (2012). ADHD, Addiction, Attention Deficit Disorders, Cognitive Behavioural Therapy, Depression, Major Depressive Disorder, Psychotherapy.
- Steinberg, L (2014). *Age of Opportunity; Lessons from the new science of adolescence*. Boston, MA: Houghton Mifflin Harcourt.
- Stoppler Melissa C (2018) Metabolic Syndrome. MedicineNet.Com Newsletters.
- Šram. Z (2017). Psychopathy and Depression as Predictors of the Satanic Syndrome, Open Theology (2017). DOI: 10.1515/opth-2017-0007
- Tara Brames (2018). Depression: 8 Reasons for Depression in Teens. GuideDoc Health Inc.
- Thapar T, Collishaw S, Pine D & Thapar A (2012). Depression in adolescence. National Institute of Health Public Access. Published in final edited form as Lancet. 2012 March 17;379 (9820): 1056-1067. Doi: 10.1016/S0140-6736(11)60871-4
- Tomita. A, Labys. C.A & Burns. J.K (2015). Depressive Symptoms Prior to Pregnancy and Infant Low Birth weight in South Africa. Maternal Child Health journal (2015) 19: 2179-2186. Springer Science & Business Media. DOI 10.1007/s10995-015-1732-z

Tucker. A, Liht. J, De Swart.G, Jobson. G, Rebe.K, McIntyre. J & Struthers H. (2013). An exploration into the role of depression and self-efficacy on township men who have sex with men's ability to engage in safer sexual practices. *AIDS Care*, 2013. Vol. 25, No.10,1227-1235. Published by Taylor & Francis Group. <http://dx.doi.org/10.1080/09540121.2013.764383>.

University of South Africa (2017) Tutorial *Letter 301/0/2017, General tutorial letter for proposal, dissertation and thesis writing, MNUALLL*. Department of health Studies. Unisa Pretoria.

Uys, L & Middleton, L (2010). *Mental health nursing. A South African perspective*. 5th Edition. Cape Town: Juta & Co.

Van Vuren A. (2012). *21st Century Psychology for Nurses. An Introduction*. 1st Edition. Van Schaik Publishers Pretoria, South Africa. ISBN: 978-0-627-029387

Vawda, N. (2012). Risk factors for suicidal behaviour among grade 8 learners in South Africa. Presented at the ICP Congress, Cape Town, South Africa.

Village Behavioural Health (2018). *Causes, Symptoms & Effects of Adolescents Depression*. Georgia, United State of America. www.villagebh.com/depression/symptoms-signs-effects (accessed on 26th January 2018).

Welman C, Kruger F & Mitchell B (2012). *Research Methodology*. 3rd Edition. Oxford University Press, Southern Africa.

WHO (2017). *Addressing co-morbidity between mental disorders and major noncommunicable diseases. Background technical report to support implementation of the WHO European Mental Health Action Plan 2013-2020 and the WHO European Action Plan for the Prevention and Control of Noncommunicable Diseases 2016-2025*. ISBN 9789289052535

Willis. N, Mavhu. W, Wogrin. C, Mutsinze. A, & Kagee.A (2018). Understanding the experience and manifestation of depression in adolescents living with HIV in Harare, Zimbabwe. PLoS ONE 13(1): e0190423. <https://doi.org/10.1371/journal.pone.0190423> . Editor: Jacobus P. van Wouwe, TNO, NETHERLANDS.

www.sadag.org. South African Depression and Anxiety Support Group

Wu Ping, Hoven. W. Christina, Okezie N, Fuller. J. C & Cohen P (2008). Alcohol Abuse and Deression in Children and Adolescents. Pages 51-69. Published online: 12 Oct.2008.

Xia. L & Yao. S (2015). The involvement of Genes in Adolescent Depression: A Systematic Review. Front Behavioural Neuroscience. Vol.9:3

Xuchu Weng (2016). Relationship between Physical Disability by Gender: A Panel Regression Model. PLoS One. 2016; 11(11): e0166238. Published online 2016 Nov 30. Doi:10. [1371/journal.pone.0166238]

Zapo, G (2018). Mental Disorders linked to Occult rituals and Involvement, New Study Finds. Copyright © 2008-2018. Healthy Habits with George Zapo.

LIST OF ANNEXURES

ANNEXURE A -ETHICS CLEARANCE FROM THE UNIVERSITY OF SOUTH AFRICA



**RESEARCH ETHICS COMMITTEE: DEPARTMENT OF HEALTH STUDIES
REC-D12714-039 (NHERC)**

1 November 2017

Anyaelesim Chioma Mirian Paschaline

Decision: Ethics Approval

HSHDC/747/2017

Anyaelesim Chioma Mirian Paschaline

Student No:44506880

Supervisor: Prof GB Truayegale

Tshweneagae

Qualification: D Tech

Joint Supervisor: -

Name: Anyaelesim Chioma Mirian Paschaline

Proposal: Factors contributing to depression in adolescents admitted in a psychiatric hospital

Qualification: **MPCH594**

Thank you for the application for research ethics approval from the Research Ethics Committee: Department of Health Studies, for the above mentioned research. Final approval is granted from 1 November 2017 to 1 November 2019.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Research Ethics Committee: Department of Health Studies on 2 August 2017.

The proposed research may now commence with the proviso that:

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Research Ethics Review Committee, Department of Health Studies. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*



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**ANNEXURE B-APPLICATION LETTER TO CONDUCT A RESEARCH STUDY IN
PSYCHIATRIC HOSPITAL**

P.O.Box 539

Benoni,

1500

14th June 2018

The Manager Director & Research and Training Committees,

Federal NeuroPsychiatric Hospital, Enugu

Nigeria.

Dear Sir,

REQUEST TO CONDUCT A CLINICAL RESEARCH

I, Anyaelesim Chioma Mirian Paschaline, would like to request a permission to conduct the research titled "Factors contributing to depression in adolescents admitted to a psychiatric hospital" as a requirement for a Master degree in Public Health. The study will be done under supervision and guidance of the Professor Gloria Thupayagale-Tshwaneagae in the College of Human Sciences (department of health studies) at the University of South Africa (UNISA). The aim of the study is to explore the contributing factors leading to depression in adolescents and the study population will be adolescents (between 11-19years of age) both males and females who are diagnosed and admitted for depression between the year of 2017-2018 at Federal Neuropsychiatric Hospital Enugu, Nigeria.

The (significance) outcome/findings of the study will reduce the incidence of depression among the adolescents; find a measure to help them improve their life towards attainment of adulthood. The findings will also help the health professionals (multidisciplinary teams) in modifying the treatment (intervention strategies) of depression having known their contributing factors of their depressive state.

Hoping for a favourable consideration for the request

Yours faithfully,

Anyaelesim C.M.P.

ANNEXURE C- APPROVAL LETTER (PERMISSION TO CONDUCT RESEARCH)



FEDERAL NEUROPSYCHIATRIC HOSPITAL ENUGU

Chime Avenue, New Haven, P.M.B 01181, Enugu Nigeria
042-250579; 253098; 253165 Fax 042-254454

Medical Director
Dr. J. U. Onwukwe
M.D (Sofia), FWACP
17th August, 2018

Ref. No:

FNHE/HTR/REA/VOL.11/387

Dr.M.O. Bakare
M.B.B.S FMC Psych, MNIM
Consultant Psychiatrist
Head Training & Research

Anyaelesim Chioma Mirian Paschaline,
Department of Health Studies,
University of South Africa,
P.O. Box 392,
Unisa,
Pretoria 0003.

Dear Anyaelesim Chioma Mirian Paschaline,

RE: RESEARCH PROPOSAL FOR ETHICAL CLEARANCE

This is to convey to you the approval of the Ethical Committee of Federal Neuropsychiatric Hospital, Enugu on your study Proposal titled, **"FACTORS CONTRIBUTING TO DEPRESSION IN ADOLESCENTS ADMITTED TO A PSYCHIATRIC HOSPITAL"**

DR. Iteke Obiora C.
MB. BCH, FMCPsych
Consultant Psychiatrist
Ag. Head Clinical Services

Kindly ensure you comply strictly with the detail procedure specified in your Proposal.

In addition, you are required to submit one (1) copy each of the Proposal and final research work to the Hospital Library through the Office of the Head, Training and Research.

Thank you and best wishes.

Igwenagu N.C. (Mrs.)
Bsc, Mkt, Msc Pub Rel
PGD Health Adm/Mgt.
Ag. Assistant Director of Administration


Dr. Oroywigho Andrew
Chairman, Ethical Committee



(ALL CORRESPONDENCE TO BE ADDRESSED TO THE MEDICAL DIRECTOR)

ANNEXURE D-INFORMATION LEAFLET

INFORMATION LEAFLET

I, Anyaelesim Chioma Mirian Paschaline, will be conducting a study on factors contributing to depression in adolescents admitted to a psychiatric hospital 'as a requirement for master's degree in Public Health. The study will be done under supervision and guidance of Prof .G.B.Thupayagale- Tshweneagae of the department of Health Studies at the University of South Africa, Pretoria. The objectives of the study are:

- . To explore and describe the factors contributing to adolescent depression that led hospitalisation to a psychiatric unit.
- . To share the findings of the study with the health care managers for the improvement of the adolescents' mental health.

After obtaining your permission and that of your child, there will be an in-depth interview of your child which will be conducted for about 30 minutes, during which she/ he will describe her/his contributing factors to depression. Only one open-ended question will be asked during the interview. This interview will be audio taped and transcribed verbatim for verification of findings by an independent professional in psychiatry and my supervisor. The audiotapes will be kept under lock and key. Only my supervisor and I will have an access to them. The audiotape will be destroyed two years after the publication of the research.

Arrangements will be made with you to bring your child to come in to Federal Neuropsychiatric Hospital Enugu once permission is granted by you. Research findings will be made available to you on request. Participation in this study is voluntary and that even during the course of the interview; you can terminate the interview without penalty. You and your child will not be paid for participating in this study.

In order to protect your child's identity, your child and both the researcher will sign the confidentiality binding form. The researcher will undertake the following;

- . To omit or disguise your child's name when discussing information pertaining to the study;
- . To keep all raw data under lock and key when not in use

ANNEXURE E-CONSENT FORM

(CONSENT FORM) REQUEST TO CONDUCT RESEARCH

I, Anyaelesim Chioma Mirian Paschaline, invite you in a research project entitled 'Factors contributing to depression in adolescents admitted in a psychiatric hospital 'as a requirement for masters' degree in Public Health. The study will be done under supervision and guidance of Prof. G.B.Thupayagale- Tshweneagae of the department of Health Studies at the University of South Africa, Pretoria.

In order to protect your identity, you and both the researcher will sign the confidentiality binding form. The researcher will undertake the following;

- . To omit or disguise your name when discussing information pertaining to the study;
- . To keep all raw data under lock and key when not in use
- . To leave my contact details in case you need to see in connection with any matter pertaining to the study.

Your participation in this study has the potential of benefitting other mental health care users who find themselves in similar situation. The direct benefit to you is that during the interview you will have the opportunity to verbalise why you are depressed or in low mood.

My address is No 6 Vlei road Rynfield, Benoni.1500. My contact detail is 0738761678 or +2348138532526 and communications to be done between 16H00 and 18H00.

Factors contributing to depression among adolescents

I _____ give my permission to participate in the research study and also to have my interview audio-taped.

Participant

Witness

Date

Date

ANNEXURE F-ASSENT FORM AND PARENTAL CONSENT

INFORMED ASSENT AND PARENTAL CONSENT (participants less than 18 years of age)

I hereby confirm that the researcher has informed me about the nature, benefits and risks of the study. I have also received, read and understood the above written information (client information leaflet and informed consent) regarding the study.

I am aware that the results of the study, including personal details regarding my age, sex, educational status, ethnicity, and religion, will be anonymously processed into a research report.

I may, at any stage, without prejudice, withdraw my consent and participation of my child/guardian in the study. I had sufficient opportunity to ask questions and of my own free will declare myself prepared to participate in the study.

Statement of Parent or Guardian:

My child appears to understand the research to the best of his or her ability and has agreed to participate.

Name of Parent or Guardian _____

Signature of Parent or Guardian _____ Date _____

Participant's Name _____

Participant's signature _____ Date _____

Researcher's name _____

Researcher's signature _____ Date _____

I, Anyaelesim Chioma Mirian Paschaline (researcher) herewith confirm that the above participant has been informed fully about the nature, conduct and risks of the above study.

Witness's name* _____

Witness's signature _____ Date _____

ANNEXURE G-CONFIDENTIALITY BINDING FORM

Confidentiality binding form

Research topic: Factors contributing to depression in adolescents admitted to a psychiatric hospital

To the study participants,

This document serves to inform you that this research and data collected will be kept confidential. No unauthorized person will gain an access to the information that you will be giving to the researcher. Your identity will be hidden and a code will be given to you to facilitate that.

Signing of this document by both you and the researcher binds the confidentiality of the information you be giving out to the researcher.

Name of study participants

Date.....

.....

Signature

Researcher

Anyaelesim Chioma Mirian Paschaline

Date.....

Signature

ANNEXURE H-INTERVIEW GUIDE/SCHEDULE

THE STUDY TITLE

Factor Contributing to Depression in Adolescents admitted to a Psychiatric Hospital.

In-depth Interview guide

1. Age
2. Gender
3. Religion
4. Grade level
5. Ethnicity

Central Opening Question

Tell me of what you think that contributed to your illness (low mood)'or why were you admitted in this hospital?

Probing Questions

- What is your understanding of depression?
- How is your mood before admission and on admission?
- What made you to be depressed?
- Do you know any other or seen any other contributing factors to depression in adolescents?
- In your opinion, what recommendations that can be made to prevent depression?

Closing

Summary of interview about the main issues discussed. Explanation of the next course of action to be taken to the participants. Maintaining rapport and encouraging possibility for follow-up. Thanking participants.

