FAMILIAL FACTORS ASSOCIATED WITH DEPRESSION AND SUICIDAL IDEATION AMONG IN-SCHOOL ADOLESCENTS IN IBADAN, NIGERIA

BY

ABAYOMI SUNDAY DARAMOLA

Matric. No.: 176612

B.Sc. Psychology, MSc. Clinical Psychology (Jos)

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ABSTRACT

Contemporary socio-economic problems such as overpopulation, poverty, and poor health care system have increased the number of adolescents and young adults that are susceptible to depression and suicidal ideation. In Nigeria, there are few studies on the prevalence and causes of depression and suicidal ideation among adolescents, and particularly family-induced ones. This study, therefore, examined the relative contributions of certain socio-demographic variables (age, gender, and class in senior secondary school) and family variables (family size, family type, and birth order) as factors associated with depression and suicidal ideation among in-school adolescents in Ibadan, Nigeria.

Emotional security and emotion regulation theories provided the framework, while a cross-sectional survey design was adopted. One thousand in-school adolescents were randomly selected from four Local Government Areas (LGAs) to represent urban LGAs (Ibadan North and Ibadan North West) and semi-urban LGAs, (Ido and Akinyele) in Oyo State, Nigeria, through cluster sampling and stratified sampling techniques. Ten Senior Secondary Schools were randomly selected from each of the four LGAs. Participants completed a structured questionnaire that contained items on socio-demographic and family variables, a depression subscale of Trauma Symptom Checklist 40 ($\propto$= 0.67), and Positive and Negative Suicide Ideation Inventory ($\propto$= 0.77). Data were analysed using Analysis of variance and t-test for independent samples at $p \leq 0.05$.

The participants' mean age was 14 ± 1.52; 44.3% were males and 55.7%. About 15.0% of the respondents were in Senior Secondary School Class 1, 39.3% were in Senior Secondary School Class 2, and 45.7 % were in Senior Secondary School Class 3, 62.6% were below seven in family, 37.4 % were seven or more in family; 67.3% were from monogamous families while 32.7% were from polygamous families, 69.7% were low birth order, while 30,3% were higher birth order. Depression was reported by 21.2% while 38.3% reported suicidal ideation. Adolescents in urban LGAs reported higher suicidal ideation and depression than those in semi-urban LGAs. There was significant variation of depression on family size ($F_{(3, 995)} = 6.39$), those adolescents from family with 10 or more members significantly reported higher depression than adolescents from family with 4-6 and 7- 9 members. Family size also significantly influenced suicidal ideation ($F_{(3, 995)} = 11.04$), those adolescents from family with seven or more members significantly reported higher level of negative suicidal ideation than adolescents from family with below seven and seven and above members. Higher birth order significantly influenced level of depression ($F_{(4, 994)} = 6.76$), and negative suicidal ideation ($F_{(4, 994)} = 3.39$). Adolescents within 16^{th} - 20^{th} birth order were more depressed than 1st born, 2^{nd} - 5^{th}, 6^{th} - 10^{th}, and 11^{th} - 15^{th}. Adolescents from polygynous family were significantly higher on depression ($t_{(996)} = 4.40$) and negative suicidal ideation ($t_{(996)} = 4.03$) than adolescents from monogamous families.

Large family size, polygamous and higher birth order influenced depression and suicidal ideation among sampled in-school adolescents in Ibadan, Nigeria. Mental health professionals and parents/care givers should therefore consider these factors in mental health services.

Keywords: In-school adolescents, Family size, Family type, Suicidal ideation

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CERTIFICATION

This is to certify that, this dissertation titled "Familial Factors Associated with Depression and Suicidal Ideation among In- School Adolescents in Ibadan, Nigeria" was written by Mr. Abayomi Sunday DARAMOLA, (Matric. No.: 176612) of the Department of Psychology, Faculty of the Social Sciences, University of Ibadan, Ibadan, under the supervision of:-

…….....

Dr B. O. Olley
Supervisor

Department of Psychology,
Faculty of the Social Sciences,
University of Ibadan, Ibadan

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

Contemporary socio-economic problems such as overpopulation, poverty, and poor health care system have increased the number of adolescents and young adults that are susceptible to depression and suicidal ideation. In Nigeria, there are few studies on the prevalence and causes of depression and suicidal ideation among adolescents, and particularly family-induced ones. This study, therefore, examined the relative contributions of certain socio-demographic variables (age, gender, and class in senior secondary school) and family variables (family size, family type, and birth order) as factors associated with depression and suicidal ideation among in-school adolescents in Ibadan, Nigeria.

Suicidal Ideation is considered to be a significant antecedent to later attempt and accomplished suicides (Brent, Johnson, Bartle, Bridge, Rather, Matta…Constantine, 1993; Gili-Planas, Roca-Bennasar, Ferrer-Perez, and Bernardo-Arroyo, 2001) moreover it is of main public health consequence. Nationwide investigation estimates that 11.4% of college students extremely reflected on attempting suicide in the previous years, 7.9% concluded a suicide plan, and 1.7% tried suicide (Barrios, Everett, Simon, and Bremner, 2000, Olley, 2006). Suicidal behaviour (SB) denotes a range of behaviours that comprises thought of suicide (or ideation), scheduling for suicide, threats of suicide, trying of suicide and suicide itself. The annexation of ideation in suicidal behaviour is a multifaceted matter around which there are evocative constant academic discourse (Thompson, et al 2012).

Every single suicide is a catastrophe that distresses families, communities and whole countries and has enduring impacts on the individuals left behind. Suicide can ensue at all age and remained the second prominent source of death amongst 15–29-year-olds universally in 2012 (World Health Organisation, [WHO], 2014). According to WHO (2014), over 800,000 individuals die by suicide each year – about one individual each 40 seconds, with 75% of suicides taking place in low- and middle-income nations.

Suicide is an obdurate public health problem; besides it is avertible with appropriate, evidence-based and time and again inexpensive interventions. Meant for nationwide retorts to be in effect, a wide-ranging multi-sectoral suicide deterrence scheme is required (WHO, 2014). Suicidal behaviours (SB) characterize a foremost economic and societal encumbrance for contemporary societies. In spite of continuous research designed at recognizing demographic and clinical risk elements, active deterrence of SB remains a foremost encounter (Husky, McGuire, Flynn, Chrostowski, and Olfson, 2009).

The concern of suicide is a multifarious one and deterrence efforts against it oblige interdisciplinary teamwork amid health care specialists. The psychological and social impact of suicide on the family and society is massive. On the average, a single suicide grievously upsets at least six additional individuals. If a suicide ensues in a school or workplace its side effect impacts on hundreds of other individuals. The burden of suicide can be projected in terms of DALYs (Disability-Adjusted Life Years), DALY is a measure of total disease burden, specified as the amount of years lost owing to ill-health, disability or early death (WHO, 2016).According to this indicator, in 1998, suicide was accountable for 1.8% of the total burden of diseases worldwide, fluctuating between 2.3% in high-income countries and 1.7% in low-income countries. This is equal to the burden due to wars and homicide, roughly twice the burden of diabetes, and equal to the burden of birth asphyxia and trauma. (WHO, 2000)

Suicidal predisposition or Adolescent Suicidal Behaviour (ASB) and depression are weighty civic wellbeing glitches and energies have been strengthened to comprehend suicidal ideation and depression among In- School Adolescents. Suicidal ideation occurs on a continuum from suicidal ideation to completed suicide (Evans, Hawton, and Rodham 2004; Thompson, Proctor, English, Dubowitz, Narasimhan and Everson, 2012) whereas the continuum of depression exists from mild to profound (American Psychiatric Association, [APA], 2013). Depression among adolescents is an uncommon and habitually unrecognized matter in pediatrics. Children and adolescents conversely agonize from both depression and concomitant symptoms (Chinawa, Manyike, Obu, Aronu, Odutola, Chinawa, 2015, Gureje, Ademola and Olley, 2008).

According to Chinawa et. al. (2015) it is recognised and documented that adolescents do undeniably suffer from both depressive symptoms and depressive disorders and they further stated that, adolescence is a critical period for the development of depressive disorders. Depressive symptoms among adolescents are often attributed to the normal stress seen at this stage of life. This is often misdiagnosed as primarily conduct or substance abuse disorders. Neglecting depression among adolescents can have a awful and deleterious consequence. Depression appears as a factor related to suicide. Early in the 20th century, it was alleged that children as well as adolescents could not suffer from depression. Later in the century, psychologists have come to the knowledge that children can get depressed; though, numerous findings established that childhood depression is different from adult depression (Clarizio, 1989). Some typical symptoms of depression in adolescents are melancholy, suicidal ideation, aggressive behaviour, sleep disturbances, changes in school performance, diminished socialization, and changes in appetite (Clarizio, 1989, Gureje, Ademola and Olley, 2008.).

A foremost cause or trigger of depression in adolescents is assumed to be distress. A predisposition to depression may be implicated; even so, the additive stresses of everyday adolescent life often appear to trigger depression (Clarizio, 1989). According to Pfeiffer, (1989) "*There is a complex relationship between depression and suicide. Many depressed patients are suicidal, and, conversely, most but not all suicidal individuals manifest depressive mood and symptoms if not depressive illness"*. In a study by Rubenstein, Heeren, Housman, Rubin, and Stechler (1989), 300 high school students out of 1,124 in grades nine through twelve participated in a study that intended to differentiate risk and protective factors in suicidal and non-suicidal high school students. Depression and life stress were found to be risk factors for suicide. It was determined that family interconnection can counterweight life stressors. They also found that moderate to severe levels of depression posed an internal risk factor for suicidal ideation in adolescents. Further, those who scored high in the clinically depressed range on the Beck Depression Scale were at a greater risk for suicidal ideation.

The association between adolescent depression, suicide ideation and familial factors has been noted by a number of investigators (Bayatpour, Wells, and Holford, 1992; deWilde, Kienhorst, Diekstra, and Wolters, 1992; Pfeffer, Lipkins, Plutchik, and Mizruchi, 1988; Clarizio, 1989; O'Connor, 2011a; 2011b), but models of the process that links these two public health problems have not yet been adequately tested. Consideration of the epidemiological characteristics of depression and suicide ideation brings into sharp focus the need to understand that process. Although depression and suicide has more often been considered a problem pertaining primarily more to adults, both mental health conditions are now known to have substantial applicability to adolescents (Clarizio, 1989; Centre for Disease Control and Prevention [CDC], 1995), Suicide is the second most frequent cause of death among adolescents (CDC, 1995).

1.2 Statement of Problem

Alarming statistics, from 2003-04 suicide rates showed that suicide rate among females. between ages 10-19 and males between ages 15-19 increased significantly (CDCP, 2006). Between 1970 and 1990, suicide rates tripled among children between the age of 5 and 14 years. Overall suicide rate of children and adolescents have increased to over 300% since the 1950s. More adolescents die by suicide than from cancer, AIDS, birth defects, stroke, pneumonia, influenza and lung disease combined. During the year 2000, almost 4000 adolescents aged 15 to 24 years killed themselves (…….). Ninety percent (90%) of adolescents who die by suicide usually suffer mental health problems, especially depression, substance abuse or both. It would be important to examine whether familial factors have ability to influence depression and suicidal ideation among adolescents in Ibadan, Oyo State, Nigeria. Familial factors could be trigger of significant risk factors for mental health of adolescents (Clarizio, 1989; CDC, 1995), it is not known whether theses variables would influence depression and suicidal ideation in Ibadan, Nigeria.

Adolescence marks a complex period of transition between childhood and adulthood (Story, Neumark-Sztainer, and French, 2002) Despite these needs, youths with suicidal ideation are especially unlikely to seek help (Husky, McGuire, Flynn, Chrostowski, and Olfson, 2009) and their suicidal ideation is often not recognized by others in their lives (Thompson,

Dubowitz, English, Nooner, Wike, Bangdiwala,…Briggs, 2006). It is important, therefore, to better understand the factors that indicate risk of suicidal ideation among youths. (Thompson, et al 2012). General population epidemiological surveys of adolescents indicate that such acts occur more frequently than is suggested by hospital statistics (Choquet and Ledoux, 1994; Hawton, Rodham, Evans, and Weatherall, 2002). Such studies can also define the characteristics of adolescents who self-harm, or have suicidal ideas, which can assist in the early identification of adolescents at risk and inform both prevention and intervention strategies. A large number of factors which may contribute towards the occurrence of suicidal phenomena have been identified, including individual characteristics, such as depression, low self-esteem, family and social factors (O'Connor, 2011a; 2011b).

According to WHO (2014), globally, the availability and quality of data on suicide and suicide attempts is poor. Only 60 member states have good-quality vital registration data that can be used directly to estimate suicide rates. This problem of poor-quality mortality data is not unique to suicide, but given its sensitivity and the illegality of suicidal behaviour in some countries, – it is likely that under-reporting and misclassification are greater problems for suicide than for most other causes of death. Suicidal ideation and depression among In -School Adolescents remains an important clinical problem and the major cause of death among youths (Amitai and Apter, 2012). Given the challenge of depression and suicidal ideation therefore, linking familial factors would be substantial step forward, helping to update knowledge, of the impact of familial factors and thus improving the ability to treat the maladaptive behaviour of depression and suicidal ideation.

Research Questions

The following research questions were posed:

1. Will in- school adolescents from urban LGAs significantly report more depression than those in semi urban LGAs in Ibadan, Oyo State, Nigeria?
2. Will in- school adolescents from urban LGAs significantly report more suicidal ideation than those in semi urban LGAs in Ibadan, Oyo State, Nigeria?
3. Will Family size significantly influenced depression levels among in- school adolescents in Ibadan, Oyo State, Nigeria?

4. Will Family size significantly influenced suicidal ideation levels among in- school adolescents in Ibadan, Oyo State, Nigeria?
5. Will birth order significantly influence depression levels among in-school adolescents in Ibadan, Oyo State, Nigeria?
6. Will birth order significantly influence suicidal ideation levels among in-school adolescents in Ibadan, Oyo State, Nigeria?
7. Will in-school adolescents from monogamous family significantly report more depression than those from polygamous family in Ibadan, Oyo State, Nigeria?
8. Will in-school adolescents from monogamous family significantly report more suicidal ideation than those from polygamous family in Ibadan, Oyo State, Nigeria?

1.3 Purpose of Study

The main purpose of this study is to examined the relative contributions of certain socio-demographic variables (age, gender, class in senior secondary school) and family variables (family size, family type, birth order) as factors associated with depression and suicidal ideation among in-school adolescents in Ibadan, Oyo State, Nigeria.Specific objectives toward realizing this goal include:

1. To examine whether the in- school adolescents from urban LGAs will significantly report more depression than those in semi urban LGAs in Ibadan, Oyo State, Nigeria.
2. To examine whether the in- school adolescents from urban LGAs will significantly report more suicidal ideation than those in semi urban LGAs in Ibadan, Oyo State, Nigeria.
3. To investigate if family size will significantly influenced depression levels among in- school adolescents in Ibadan, Oyo State, Nigeria.
4. To investigate if family size will significantly influenced suicidal ideation levels among in- school adolescents in Ibadan, Oyo State, Nigeria.
5. To enquire whether birth order will significantly influence depression levels among in-school adolescents in Ibadan, Oyo State, Nigeria.
6. To enquire whether birth order will significantly influence suicidal ideation levels among in-school adolescents in Ibadan, Oyo State, Nigeria.

7. To explore whether in-school adolescents from monogamous family will significantly report more depression than those adolescents from polygamous family in Ibadan, Oyo State, Nigeria.
8. To explore whether in-school adolescents from monogamous family will significantly report more suicidal ideation than those adolescents from polygamous family in Ibadan, Oyo State, Nigeria.

1.4 Relevance of the Study

The focus of this present study will facilitate the scaling up of comprehensive quantitative data on suicidal ideation and depression among in -school adolescents in Ibadan, Oyo State, Nigeria. This study will be relevant in contributing data to the identification of in- school adolescents at risk of suicide attempt based on the familial factors under consideration. Many of the available epidemiological studies which suggest high prevalence of adolescent depression and suicide attempts were based on samples of hospitalized adolescents; in view of this, they have a number of limitations.

First, the generalisability of findings to community samples cannot be assumed. Second, previous studies have relied on retrospective report, whereas only prospective research (such as this study) would provide information about the extent to which characteristics precede, and predict a future suicide attempt among adolescents (Andrews and Lewinsohn, 1992).

The findings of this research will contribute to emerging empirical literature on depression and suicidal ideation among in school adolescents in Ibadan, Oyo State, Nigeria. The scientific relevance of this study is of advantage to the practice of clinicians when the knowledge would be applied in preventing the condition of distress among in- school adolescents.

Furthermore, the outcome of this study will be useful in subsequent quantitative and qualitative research on depression and suicidal ideation among in- school adolescents.

The findings of this study will also avail researchers, clinicians and teachers insights into further research areas on depression and suicidal ideation among in-school Adolescents. It is noteworthy that Nigeria is among the United Nations countries lagging behind in comprehensive data for suicide behaviour (WHO, 2014).

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter surveyed relevant literature on depression and suicidal behaviour, it also reviewed traditional and modern theories on this subject matter.

2.1 Theoretical Framework

2.1.1 Theories of Depression

Theories of depression can be grouped into biological or psychological types.

2.1.2 Biological Theories

2.1.2.1 Genetic Theories

As life stress research has shown, genetic factors interact with environmental factors even in the so called “endogenous” disorders. Heredity appears to influence emotional liability, cellular functioning, basic arousal levels, stimulus threshold levels, and other physiological substrates of behaviour, and these ultimately may be related to depressive experience (Corsini, 1987; Comer 2007).

2.1.2.2. Biochemical Theories

Biochemical theories can be grouped into three basic types: (a) biogenic amine theories, which include catechdamine, indoleamine, and permissive amine hypotheses; (b) electrolyte metabolism theories, which focus on sodium and potassium metabolism in the brain, and (c) pituitaryardrenal axis theories. Biogenic amine theories include three different hypotheses. The catecholamine hypothesis claims that some depressions are caused by low levels of catecholamines like norepinephrine and epinephrine. Other researchers have speculated the primary mechanism may be indoleamines like serotonin or 5-hydrotryptamine (5-HT). Numerous studies have reported that tryptophan, a metabolic precursor of 5-HT, decreases depressive symptoms. In addition, antidepressant drugs increase functional brain 5-HT, while 5-hydroxyindole-acetic acid (5-HUAA), the major breakdown product of 5-HT, has been reported to be low in the cerebral spinal fluid of depressed patients. All these findings are compatible with a deficit of brain 5-HT in depressive illnesses. Some researchers believe both norepinephrine and 5-HT may be altered in the same patients, or that certain depressions may be linked to 5-HT and other depressions to epinephrine. Other researchers have suggested a permissive amine theory

which posits an initial deficiency in serotonin, which subsequently modulates the levels of norepinephrine present in the neural synapse. Thus both indoleamines and catecholamines are implicated, with the former determining the levels of the latter (Corsini, 1987; Comer 2007).

The second group of biochemical theories of depression involve electrolyte metabolism mechanisms. Electrolytes, or electrically charged atoms, performed a critical part in the transmission of electrochemical impulses at the cellular level. Sodium and potassium metabolism are the most important electrolytes in the signal transmission process in the cells. The neuron is in equilibrium when there is a balance in the electrical charge of the atoms inside and outside the cell. An appropriate stimulus alters the distribution of sodium and potassium, and initiates a nerve impulse. Several studies have suggested that there may be a disturbance in the balance of sodium and potassium in depressive disorders. These studies contend there is an increase in intracellular sodium in depressed patients and a decrease following recovery. An increase in sodium can produce a situation in which a smaller stimulus is required for a nerve to fire. Another biochemical theory of depression argues that the primary problem in depressive disorders resides in the hypothalamic-pituitary-adrenal axis. When confronted with a stressor, the pituitary gland releases adrenocorticotrophic hormone (ACTH), that excites the adrenal cortex to release adrenalin into the blood stream. This produces a state of emotional arousal termed the "fight or flight" syndrome. Researchers have learned that the hypothalamus releases a corticotrophic hormone (CRH) which may control the release of ACTH by the pituitary. There is also suspicion that CRH is determined by norepinephrine and serotonin. Thus there may be a linkage between catecholamines, indoleamines, and the stress-response system (Corsini, 1987; Comer 2007).

2.2.9 Psycho-behavioural Theories

2.2.9.1"*Reconposre"* Theory. "*Reconposre"* is an acronym which means *response contingent positive reinforcement*. This theory advanced by Peter Lewinsohn, states that individuals develop depression when they receive inadequate amounts of positive reinforcement. This may occur because: (a) few events are potentially reinforcing for the

individual; (b) there is little positive reinforcement from the social environment; (c) the individual lacks the skills to elicit positive reinforcement from others.
Research on normal depression supports this viewpoint. However, this perspective has not been applied to seriously depressed patients.

2.2.9.2 ***Learned Helplessness Theory.*** This theory, developed by Martin Seligman is based on animal research on avoidance learning. When humans or animals are trapped in situations in which they can no longer avoid harm or threat, they develop a sense of helplessness and act "depressed". Research has supported the notion that learned helplessness may be more than an analog for depression; it may be an accurate model of what occurs when people find themselves in circumstances in which their behaviour seems to make little difference. Uncontrollable aversive events may produce an expectancy that one cannot control stressors, and this can lead to resignation and hopelessness.

2.2.9.3 ***Cognitive Theory***. Cognitive theories of depression focus on the role of thought processes. Aaron Beck argues that problematic childhood experiences can lead to cognitive styles and patterns characterized by logic errors, arbitrary inferences, selective abstraction, over generalization, dichotomous thinking, and excessive magnification. Consequently, people that are depressed incline to ruminate in distorted methods. These distortions precipitate new problems and exacerbate old ones, leading to a vicious circle in which depression is continually increased.

2.2.9.4. Psychoanalytic Theory. In general, psychoanalytic theories argue that depression results from the loss of an ambivalently loved person. The presence of ambivalence results in self-directed hostility, and this constitutes the depressive experience. Many variations on the "loss of love object" theme have been developed. These suggest the self-punishment accompanying depressive experience may actually be an unconscious effort to regain maternal love and support and/or a symbolic return to the nurturant stage of breast feeding. In some cases, traumatic experiences in childhood, especially losses, results in faulty ego development and a fixation at a childhood state of helplessness and insecurity. Adult conflicts can bring about a return to this earlier state via regression mechanisms.

New perspectives on depression include theories addressing themselves to the interaction of biological, psychological, and sociological levels of functioning. This approach integrates the different theories already advanced and offers the promise of new perspectives (Corsini, 1987; Comer 2007).

2.2.10 Theories of suicide

2.2.10.1 Traditional Theories of Suicide

According to Klonsky and May, (2015), numerous theorists had explained suicide. For example, Shneidman (1985, 1993) described suicide as a reaction to devastating agony (i.e., psychache), Durkheim (1897/1951) underlined the character of social loneliness, Baumeister (1990) termed suicide as an escape from an aversive state of thoughts, and Beck and Abramson (Abramson, Alloy, Hogan, Whitehouse, Gibb, Hankin, and Cornette; 2000; Beck, 1967) underscored the role of hopelessness. The self-destructive actions have been viewed beyond the immediate triggers (stressful events and situations, serious illness abusive environment, mood and thought changes). The basic limit of these leading theories is that they had failed to examined the full spectrum of suicide acts, based on this the clinical field is still extending research in order to have satisfactory understanding of the whole spectrum of suicide behaviours (Comer, 2007).

2.2.11. The Psychodynamic View

A number of psychodynamic theorists posit that suicide is due to level of depression and annoyance at other individual that is relayed toward oneself. Wilhelm Stekel was one of the pioneers of this theory, he asserted that *'no one kills himself who has not wanted to kill another or at least wished the death of another'* (Sheidman, 1979). Then, Sigmund Freud (1920) wrote, '*No neurotic harbours thoughts of suicide which he has turned back upon himself from murderous impulses against others'* supporting this notion, Karl Menninger termed suicide 'murder in the 180th degree" (Comer, 2007). Freud (1917) and Abraham (1916,1911) stated that the experience of the real or symbolic loss of a loved one by an individual, lead to 'introject' the lost person; that is, they automatically integrate the person into their own identity and feel towards themselves as they had felt toward the other. For a short period of time, negative feelings towards the lost loved one are experienced as self-

hatred. Anger directed at the loved one can be transformed to strong anger against oneself and as a final point into depression. Suicide is assumed to be an extreme expression of this self-hatred.

In line with Freud's view, researchers have repeatedly establish a relationship between childhood losses real or symbolic, and later suicidal behaviours (Read, Agar, Barker-Collo, Davies, Moskowitz 2001; Kaslow, Reviere, Chance, Rogers, Hatcher, Wasserman, Smith, Jessee, James and Seelig, 1998, Adewuya, et al, 2007). In a study of 200 family histories it was discovered that early parental loss was implicated among suicide attempters (48 percent) than among non-suicidal control subjects (24 percent) (Adam, Bouckoms, and Streiner, 1982). Repeated pattern of loss were death of the father, divorce or separation of the parents. Freud research indicated that human beings have a basic '*death instinct'* called *Thanotos,* which opposes the 'life instinct'. Based on this postulation, some individuals learn to redirect their death instinct, in targeting it to others, suicidal individual, are fixated in self- anger, direct it squarely upon themselves. Findings in sociological field are related to explanations of suicidal behaviour, but has not established that individual that exhibit suicidal behaviour are manifesting strong feelings of anger. Although aggression is a vital component in some suicides (Sher, Oquendo, Falgalvy, Grunebaum, Burke, Zalsman, 2005), numerous research finds that other emotive conditions are even more predominant (Castrogiovanmi, Pieraccini, and DiMuto, 1998). Freud later conveyed dissatisfaction with his theory of suicide. Other psychodynamic theorists have also confronted his idea over the years, yet themes of loss and self-directed aggression largely persist at the core of most psychodynamic accounts (King and Apter, 2003).

2.2.12 The Sociocultural View

Durkheim (1897), a sociologist, advanced a broad theory of suicidal behaviour. According to this theory, the likelihood of suicide is established by how an individual is attached to social groups such as the family, religious institutions, and community. The more connectedness to such groups will lower the possibility of suicidal behaviour, however, individuals who have thwarted or maladaptive social network and relationships will exhibit greater level of self-harm behaviour, the three construct that he used are egoistic, altruistic,

and anomic.

2.2.13 Egoistic Suicides

Egoistic suicides is a form of suicide committed by individuals which the society has little or no control. These individuals are not integrated into the community and tend to be individualistic in their behaviour by not adhering with the norms or rules of society. Durkheim (1897), this form of suicide are committed by individuals that secluded, withdrawn, and have low level of religiosity. The presence of many individuals with such characteristics the higher the suicide rate of such community.

2.2.14 Altruistic suicides

Another form of suicide as postulated by Durkheim (1897) is altruistic suicides, this are carried out by individuals that are well integrated into the social structure, so they commit suicide as an act of sacrifice of self for the well-being of others and their society. Soldiers who flung themselves on live grenades to save others, Japanese *kamikaze* pilots who intentionally crashed their aircraft into enemy territories to cause extreme causalities during the Second World War, and Buddhist monks and nuns who objected the Vietnam War by setting themselves on fire. (Leenaars, 2004; Stack, 2004). Societies that encourage altruistic deaths for reservation respect (as done in far eastern societies) are expected to show higher suicide rates (Durkheim, 1897).

2.2.15 Anomic suicide

Anomic suicide, additional classification projected by Durkheim, this are carried out by individuals that perceived that their community or nation is unable to offer steady structural support system, for happy and less burdensome family, security and religion, that will make life worth living. This kind of community or nation, known as anomie (literally, "without law"), lead to loss of sense of individual belongingness. Distinct from egoistic suicide, that is the act of a individual who discards the structures of community, anomic suicide, is the act of an individual who has been disappointed by a confused, insufficient, habitually decomposing community or nation (Durkheim, 1897). Durkheim (1897), argued that at a period when community or nation experience anomie, they are likely to also experience higher suicide rate. Past trends support this claim. Periods of economic depression could

convey roughly some degrees of anomie in a community or nation, therefore, the national suicide rates have a tendency to increase for the duration of the economic depression (Maris, Berman and Silverman, 2000, Omigbodun et. al).

Individual experience of sudden change in the environment rather that community or national change or challenges can also ignite such experience of anomic suicidal behaviour. For example individual who suddenly inherit a great deal of money, may experience a personal period of anomie as their interaction with the community, economic, and occupational structures are altered. In view of this, Durkheim (1897), foretold that community that have facility for individual wealth creation could also have increase suicidal behaviour rates, this was supported by research (Cutright and Fernquist, 2001). Equally, individuals undergoing reformatory in prison could also experience feeling of anomie. Some of current sociocultural theorists do not continuously hold on to Durkheim's precise constructs, but they supported the view that community or national structure and cultural distress usually have impact on suicidal behaviour of an individual (Lester, 2011). In practice, the sociocultural interpretation permeates research work in suicidal behaviour. The impact is manifested in the interface of suicidal behaviour and other factors like religious affiliation, marital status, gender, race, and societal stress. This is apparent when looking at the ties between suicide and age. In view of the large contribution of socio-cultural theorists, it still lacks adequate explanation of the basic reason why an individual experiencing a form of community or national pressure commit suicide while majority of individuals in that same community do not, Durkheim (1897), concluded that the ultimate clarification perhaps, might be in the interface amongst community and individual differences.

2.2.16 The Biological View

Biological researchers count on family pedigree findings to back the point that biological factors donate to suicidal behaviour in individuals. Research have repetitively establish higher rates of suicide amongst parents and close relatives of suicidal individuals than among those of non-suicidal individuals (Brent and Mann, 2003a,) a study establish that above one third of adolescents that committed suicide had a family member who had attempted suicide (Burless & De Leo (2001). this findings pointed to the influence of

genetic, and biological, factors in suicidal behaviour. Research Studies that involve twins have also establish this fact in line of suicidal behaviour, a study of twins born in Denmark between 1870 and 1920, located 19 identical pairs and 58 fraternal pairs that have at least one twin that had committed suicide (Juel- Nielsen and Videbech, 1970). In four of the identical pair, the other twin also committed suicide (21 percent), while none of the other twins among the fraternal pairs had done so. As with all family and twin researches, there are non-biological interpretations for these findings as well (Maris, 2002). Psychodynamic clinicians might contend that adolescents whose close relatives commit suicide are disposed to depression and suicidal behaviour for the reason that they have lost a loved one at a critical period of development. Behavioural theorists might accentuate the modelling role played by parents or close family member who displayed suicidal behaviour tendency (Comer, 2007).

The current innovation in laboratory research, that have been sustained for about two decades, has offered more direct support for biological view of suicidal behaviour. The level of the neuro transmitter activity, serotonin has repeatedly been found to be lower in individuals who commit suicide (Mann et al.,1999). Asberg et al (1976) studied 68 depressed patients and established that 20 of them had particularly low level of serotonin activity. It turned out that 40 percent of the lower-serotonin individuals attempted suicide, compared with 15 percent of the higher-serotonin subjects. A number of previous investigators construed this to mean that low serotonin activity may be "a predictor of suicidal acts." Subsequent studies establish that suicide attempters with low serotonin activity are 10 times more probable to make a repeat attempt and succeed than suicide attempters with higher serotonin activity (Roy, Karoum and Pollack, 1992). Studies that scrutinise the autopsied brain of suicide victims point in identical path and pattern (Boldrini, Underwood, Hen, Rosoklija, Dwork, Mann, and Arango, 2009; Mann and Arango, 1992). Some of these studies have found, for example, that individuals who commit suicide tend to have fewer receptor sites on neurons that normally receive serotonin than do individuals who do not commit suicide.

At first glance, these and associated studies may seem to show that only depressed individuals habitually attempt suicide. Because depression is related to low serotonin activity, but, there is proof of low serotonin activity even among suicidal subjects who have no history of depression (VanPraag, 1983). That is, low serotonin activity give the impression that it has a role in suicide separated from depression. In what ways, can low serotonin activity increase the likelihood of suicidal behaviour? One likelihood is that it contributes to aggressive behaviour. It has been found, for example, that serotonin activity is lower in aggressive, than non-aggressive individuals, and that serotonin activity is often low in those who commit such aggressive acts as arson and murder (Stanley, Blair and Alberman, 2000). Furthermore, additional studies have found that depressed patients with lower serotonin activity try to commit suicide more frequently, use more lethal methods, and score higher in hostility on various personality inventories than do depressed patients with comparatively higher serotonin activity (VanPraag, 1986). Such findings suggest that low serotonin activity helps produce aggressive feelings and conceivably impulsive behaviour (Mann et al. 2001). Individuals who are clinically depressed, low serotonin activity may produce aggressive tendencies that cause them to be particularly susceptible to suicidal ideation and suicidal behaviour. Even when depressive disorder is absent, conversely, individuals with low serotonin activity may manifest such aggressive behaviour that they too are dangerous to themselves or to others (Comer, 2007).

2.2.17 New Generation of Theories of Suicide: An "ideation-to-action" framework

Three theories of suicide positioned within the "ideation-to-action" framework are (1) Interpersonal theory of suicide (Joiner 2005, Van Orden, Witte, Cukrowicz, Braithwaite, Selby and Joiner 2010), (2) Integrated Motivation-volitional theory of suicide (O'Connor 2011), (3) Three-step theory of suicide (Klonsky and May 2015).

2.2.18 Interpersonal Theory of Suicide

Joiner (2005) presented the Interpersonal Theory of Suicide. He put forward a framework by which (a) suicidal ideation and (b) the progression from ideation to attempts were treated as separate processes that come with separate sets of explanations and risk factors. The specific proposed application of the framework is situated in an individual having the

perceptions of low belongingness and high burdensomeness combine together to manifest as desire for suicidal behaviour, it further established that high capability for suicide enables potentially lethal suicide attempts by an individual.

Constructs of the Interpersonal Theory of Suicide

According to Joiner (2005), Van Orden et al. (2010), the foundation of the Interpersonal Theory, is the hypothesis that individual that die by suicidal behaviour is because they can and because they want to. The basic framework of this theory are, three constructs that are considered to be fundamental to suicidal behaviour, two of these constructs principally associated to suicidal desire, thwarted belongingness and perceived burdensomeness—and one largely is connected to capability—acquired capability for suicide. The theory also contains a condition of the relations amongst these constructs, and by this means contains a specification of an underlying pathway for the development of suicidal ideation and the capability to engage in serious suicidal behaviour (i.e., lethal or near-lethal attempts).

Thwarted Belongingness

It has been established that social isolation the strongest and most reliable predictors of suicidal behaviour from adolescent to adulthood. Social isolation can be theorized as assessing one aspect of the advanced order paradigm of communal connectedness (or social assimilation), this can be assessed at different level (Berkman, Glass, Brissette, & Seeman, 2000). Further aspects of communal connectedness (e.g., loneliness and loss of a spouse) are likewise prognostic of fatal suicidal behaviour. These communal connectedness variables are linked with suicide for the reason that they are noticeable pointers that an essential individual's psychological need is unmet; this need was designated by Baumeister and Leary (1995) as the "need to belong". This theory have established that at the moment when this need is unmet—a state referred to as *thwarted belongingness*—a desire for death manifest (also referred to in the suicidology and clinical literature as passive suicidal ideation). Central role of communal connectedness have been suggested by other theorists though the contrivances differs across board.

Durkheim (1897), dysregulation of social forces—specifically, degrees of social integration—results in suicide. This further established that the level of the communal integration will determine the level suicidal behaviour. This could facilitate the understanding of the factors for predicting of suicidal behaviour and showing pattern and changes in the rate of suicidal behaviour. It must be stated that this theory pays little attention to individuals difference, which account to the different response of two individuals to the same shift or experience in communal forces, one exhibit suicidal behaviour while the other do not . Shneidman (1987), however enunciated a theory of suicide concentrated on individual differences, called "psychache"—psychological and emotional pain that is elevated to level of unbearable intensity –as the primary factor causing suicide. He further postulates that psychache is unbearable for the reason that it results from basic needs that have been thwarted (Shneidman, 1985). Shneidman (1998) suggested an all-encompassing list of primary needs, seven of which he claims are constantly thwarted in suicidal individuals, ranging from "affiliation" to "shame avoidance" to "order and understanding." In contrast to the explanation of Shneidman's model, Joiner, (2005) put forward the need to belong as the need fundamental to the development of suicidal desire, unswerving with the other findings that established the association of communal connectedness to suicidal behaviour.

The proposition of communal connectedness of the interpersonal theory is in accordance with older theories that established the same fact. Though it was quickly be pointed out that, the interpersonal theory move away from older theories on the suggestion that an unmet "need to belong" (Baumeister and Leary, 1995) is the precise interpersonal need involved in suicidal ideation. Another uniqueness of the theory is that, it established that thwarted belongingness as an advanced phenomenon with two subordinate factors. This relates to Baumeister and Leary (1995), that the need to belong encompassed of two aspects "individuals give the impression to need regular, affectively pleasure or positive interfaces with the same individuals, and they need these interfaces to occur in the structure of long-term, steady caring and concern" Joiner (2005), Hypothesize these two scopes of interpersonal operational that are postulated to encompass thwarted belongingness as loneliness and the nonexistence of reciprocally-caring relationships.

Joiner, Lewinsohn, and Seeley (2002), draw upon Russell, (1996) to theorize the constructs, loneliness was conceptualized as an affectively laden cognition that one has too few social connections, which also incorporated, Baumeister and Leary (1995),first facet of the need to belong (i.e. regular and positive interactions). That is an individual that is experiencing the psychological state of thwarted belongingness might manifest the loneliness component of the construct by stating, "I did not have a satisfying social interaction today' or "I feel disconnected from other people." The second component of thwarted belongingness in this theory is the absence of reciprocally-caring relationships (one in which the two party feel cared for and shows care for each other). Any relationship that will meet the "need to belong" will be said to be characterised by positive feelings that occur in a supportive context (Baumeister and Leary, 1995) and once they are not, such relationship cease to meet the criteria as reciprocally-caring. When an individual lacks relationship that is reciprocally caring, it might be stated that "I am not a support for others or" "There are no people I can turn to in time of need" such could be linked to an elevated risk of suicidal behaviour. The factors of loneliness in this theory is posited to give rise to six observable risks factors of profound suicidal behaviour. It was established by this theory that the absence of reciprocally-caring relationships factors is posited to give rise to six observable risk factors for lethal suicidal behaviour, such as (1) social withdrawal, (2) low openness to experience, (3) residing in a single jail cell, (4) domestic violence (5) childhood abuse (6) familial discord.

According to Joiner, (2005); Van Orden et al. (2010), the interpersonal theory assumption is that an individual's degree of belongingness is likely to vary over time, therefore This theory posited the thwarted belongings as the dynamic cognitive affective state, rather than a trait inherent in individual which is subjected to the influence of both interpersonal and intrapersonal factors. Which has to do with the individuals actual interpersonal environments (number of individuals in the social network) Hawkley, Hughes, Waite, Masi, Thisted, and Cacioppo, 2008), activated interpersonal schemas (proneness to interpret others' behaviour as indicative of rejection) Downey and Feldman, 1996), and current emotional state (depressed mood) Cacioppo, Hawkley, Ernst, Burleson, Berntson, Nouriani,

et al, 2006). This theory also examined the "need to belong" in a dimensional phenomenon on a continuum rather than as a categorical phenomenon. Baumeister and Leary (1995) propose that "partial deprivation" take place at the moment when this need is only met partially but not at the ultimate level. Significant relationship between thwarted belongings and concurrently high level of perceived burdensomeness lead to high level of suicidal ideation (Van Orden, Witte, Gordon, Bender, & Joiner, 2008).

A number of studies have documented the independent association of thwarted belongingness and suicide but the degree to which this "need to belong" is thwarted to cause suicidal behaviour have not been established. Other data indicated that there is association between thwarted belongingness and feelings of loneliness (aspect of thwarted belongingness), it is also connected to elevated salivary cortisol level which implies higher levels of physiologic stress response (Cacioppo, Ernst, Burleson, McClintock, Hawkley, et al., 2000). Individuals that experience chronic feelings of loneliness also bear the burden of other negative emotional (anxiety and aggression), pessimism, fear of negative evaluation, and shyness, in addition lower level of communal support, agreeableness (Cacioppo et al., 2006). In view of this Joiner (2005) hypothesised that, thwarted belongingness manifest in different magnitude and protracted thwarted belongingness activate suicidal ideation.

Perceived Burdensomeness

Negative life events, such as familial dysfunctionality, career or job challenges, and sickness were three risk elements of suicidal behaviour. These negative life events can make an individual to perceive self as burden on other family members which is known as "perceived burdensomeness" (Joiner, 2010), this was also established in family system theory (Sabbath (1969). Some adolescent that perceive self as unwanted in the family or the community or that the family or community will be better off without him or her. This feeling could be due to the pathogenic parental attitude toward the adolescent (Woznica and Shapiro, 1990). The economic depression state of Nigeria at the moment that have resulted in a number of parents struggling to make ends meet for the family, might make some adolescents to perceived themselves as been a burden on their parents by making life difficult for them since they would have probably not need to struggle to sought for school fees and other

expenses that are either directly or indirectly due to the need of the adolescent if they are dead.

This interpersonal theory also used two dimension to explain interpersonal functioning of perceived functioning, schema of "flawed self" as liability on others, and schema of "self-hatred" which is affectively-laden. Adolescents can express the schema of "flawed self" as liability on others by thinking "I make things worse for the people in my life" while the schema of "self-hatred" can be express as "I am useless" or "I hate myself" Schema of liability factors are implicated to lead to six observable risk elements for disastrous suicidal behaviour are the severed distress as a result of (1) unemployment and perception of being liability of self and others (2) incarcerated (and recently incarcerated) (3) homelessness (4) serious physical illnesses (5) direct statement in suicide note or verbal communication that indicated the perception of being unwanted or burden on others. Joiner (2005) stated that vast majority of cases of this perceptions of liability are misperception of the situation (Joiner, 2010), Schema of "self-hatred" four observable characteristics that have implication for disastrous suicidal behaviour are (1) low self-esteem (2) self –blame (3) shame and (4) mental state of agitation which indicate degree of self-hatred and anguish. This theory also established that perceived burdensomeness as dynamic and dimensional phenomenon therefore the level of burdensomeness is situational since it vary with time and relationship.

Relations Between Thwarted Belonging and Perceived Burdensomeness

Another proposition was that other distal risk factors combine to initiate suicide ideation by increasing the degree of thwarted belongingness and perceived burdensomeness (or some level of combination of the two). Though, this two constructs are related but they are distinct (Van Orden et. al. 2010).

Acquired Capacity for Suicide

Joiner (2010), this theory assumed that suicidal behaviour is influenced by varying degree of elements, it also assume that elevated suicidal behaviour could results from increase in other risk factors but desire to die by suicide is not sufficient for disastrous suicidal behaviour. The theory hold the assumption that for an individual to be able to carry out the

act a number of things must be present, that is such an individual must have lose some of fear related to the act of suicide. The extent-evolutionary model of fear and anxiety that stated that humans were biologically made to fear suicide because it contains exposure to stimuli and cues that are associated with threats to survival, in spite of this, some persons die by suicide. In view of this observation this theory stated that individual that acquire the capability for suicide which manifested as both increased physical pain tolerance and reduced fear of death, which could result due to habituation and activation of opponent processes, in response to recurring exposure to physical painful and or fear-inducing experiences. That is the frequent practice and exposure facilitate the habituation to the physical pains and fear associated with suicide, making it easy for such an individual to engage in increasing painful, physically damaging and disastrous methods of self-harm (lowered fear of death and increases physical pain tolerance).

Lowered fear of death

This theory holds that suicide ideation (suicidal desire) alone can to be manifested to the level of suicide attempt except when there is combination of suicidal ideation and reduced fear of suicide. The fear of suicide in on a continuum that vary with degree, which implies that an individual that have near zero degree of fearlessness of suicide is at greater risk of progressing from suicide ideation to committing suicide (Joiner, 2010),.

Elevated physical tolerance

Dying by suicide is physically painful therefore individual that have elevated tolerance to physical pain can progress from suicide ideation to attempted suicide. This tolerance to physical pain is conceptulased as dimensional phenomenon, which translates that suicide attempt will occur at a point on the continuum, and this tolerance to pain could be method specific, that is an individual may acquire this in a specific method to carry out the suicide attempt and it might not be applicable to other method of suicide (like having pain tolerance in cutting of wrist or use of gun and lack of pain tolerance to poison or vice versa). Also, the factor of expectation of pain to be experience in the process of suicide. That is the physiological conditioning to pain and cognitive appraisals of ability to cope with the pain expected are critical factors in ascertaining individual level of tolerance for a specific

method of suicide (Joiner, 2010). The common and proximate factor among all methods that hinder or enable disastrous suicidal behaviour is the existence of cognitive appraisal that pain involved in the chosen method of suicide is tolerable, this cognitive appraisal but be non-ambivalent and held with a strong strength of conviction.

Habituation and Opponent Processes

Habituation which is the process by which an individual acquire the capability for disastrous self-injury. Opponent process theory implies that "observed emotional responses are function of summation of two underlying oppositely valence processes" (Solomon and Corbit, 1974; Joiner, 2010). In addition to continual experience, the emotional impact of the opposite process become augmented as the basic emotional impact of the stimulus remain constant. For example an individual initial basic response to sound of gun will be fear. Conversely, with continual exposure to the sound of gun, the effect of the basic process (fear) will remain constant while the impact of opponent process (exhilaration) will become augmented, leading to emotional response of declined fear. When this is sustained over a long period of time, ultimately the strength of the opponent process will result in the valence of the observed emotional experience change from negative to positive (Joiner, 2010). Interpersonal theory encompasses a presentation of ideas to self-harm framework in a way that basic impact of painful and provocative stimuli (self-harm) is fear and pain and the opponent process are relief and painlessness or numbness. Nevertheless, interpersonal theory diverges by stating that the basic process also abates. Therefore, by continual preparation, the stimulus that was initially painful and or fear inducing (suicide) could come to be less terrifying and also become a source of emotional respite, thus enable an individual capable of engaging what was hitherto painful and terrifying behaviour (Solomon and Corbit, 1974; Joiner 2010)

Painful and Provocative Experiences

Experiences of childhood maltreatment or abuse, exposure to violent crises, impulsivity and previous suicide attempts are capable of snowballing the vulnerability of disastrous suicidal behaviour because this experiences are associated with physical pains and or adequately terrifying to engross habituation and opponent process with respects to the to the pain and

fear associated with suicide behaviour. Although, lack of access to disastrous means of committing suicide may serve as hindrance to utilising the acquired capability, thereby, reducing suicide rates (Joiner, 2010). Capability for suicide is conceptualized capability that is acquired over period of time, it also hold that some individuals are predisposed to have the genetic inclination to fearlessness, impulsivity or tolerance to higher degree of physical pain while other individuals are disposed to attaining the capability for suicide due to situational exposure to pain and confrontational events, or as a desire to seek out such capability (Joiner, 2005; Van Orden et al. 2010). Mental rehearsal or mental tryout is also a component of acquiring the capability for suicide. Therefore conditioning to one method of suicide does not translate to conditioning to other methods (Joiner 2010).

2.2.19 Integrated motivational-volitional theory of suicide

Model of suicidal behaviour

O'Connor (2011a; 2011b); O'Connor, Cleare, Eschle, Wetherall and Kirtley, (2016)

A three-phase theory of suicide behaviour of the integrated motivational volitional model of suicidal behaviour with the models that separate suicide ideators from suicide attempters by using the phases of (1) Pre-motivational Phase (2) Motivational Phase and (3) Volitional phase. This theory proposed that suicidal behaviour results from combination of complex interaction of factors. This theory holds that intention to engage in suicidal behaviour is only behavioural intention which in turn determines the feelings of entrapment when suicidality is viewed as the solution to distressed life events. The entrapment is triggered by perceived defeat or humiliation. The progression from defeat or humiliation to entrapment, and from entrapment to suicidal ideation, and from suicidal ideation to suicidal behaviour are influenced by state specific moderators (such as factors that enable or hinder progression between states). The first phase comprises of biosocial setting which is the Pre-motivational phase, the background factors (scarcity, susceptibilities) and the triggering events are diathesis, environment and life events (dysfunctional relationship). This phase is before the onset of suicidal ideation (the triggering effects).

Conceptual and empirical rationale for this theory

This theory extend a number of older theories but draw extensively from the theory of planned behaviour a social cognitive model of behaviour that point at the need for motivation to engage in a behaviour, Attitudes, subjective norms, and perceived behavioural control determine the intention to engage in a particular behaviour (Ajzen, 1991), the diathesis stress hypothesis (Schotte and Clum, 1987) and the arrested flight model of suicidal behaviour (Williams, 2001). As an all-encompassing structure, the theory of planned behaviour in describing suicidal behaviour try to separate the intention from the action of the intention. Empirical evidence in support this position had been put forward by previous research (O'Connor, Armitage, and Gray, 2006). In divergence from traditional perspective of suicidal behaviour as a symptom connected to mental disorder with underlying pathology to be treated, Michel and Valach, 2001); O'Connor (2011a) posited that a focus on the behaviour itself, instead of only viewing it as epiphenomenon of mental disorder, creates room for theoretical and preventive possibility that are efficacious.

Not all that experienced suicidal ideation progress to attempt suicide, but the ability to predict who will progress from ideation to attempt is still limited. Undeniably, understanding this division has been lately re-highlighted as a focal target for upcoming investigation (Klonsky and May, 2014 O'Connor and Nock 2014). Recent research in adult and adolescent have emphasized, that is the phenomenon of ideation formation are different from phenomenon of suicidal behaviour activation, for example, impulsivity differentiates among those who think about self-harm/suicide and those who engage in self-harm/suicidal behaviour (Dhingra, Boduszek, and O'Connor, 2015; O'Connor, O'Carroll, Ryan, and Smyth, 2012).

A Biopsychosocial Perspective and Premotivational Phase

Motivational and volitional phases of the model extend beyond the biosocial spectrum, by factoring in the interactive diathesis, environment, life events triad that includes the premotivational phase of the model (background factors and triggering events). The diathesis- stress model postulated that suicidal behaviour ensues as a consequence of interaction between nature and nurture. Explicitly, the diathesis, which may be biological

or genetic, confers vulnerability, and it is this vulnerability that becomes triggered or aggravated in the presence of stress. Stress may take the form of environmental factors or negative life events. The impact of this stress can be greater among those that are vulnerable (O'Connor, 2011a; O'Connor, 2011b). Adversity or Hardship experienced early in life is also important in this regard (O'Connor and Nock, 2014).

In addition, social status, rather than simply a lack of material resources, may contribute to environmental or socioeconomic vulnerability. Personality and individual differences variables that confer personal vulnerability (such as perfectionism) are incorporated in the premotivational phase but may also impact risk during the motivational phase when activated by defeat and humiliation. This apparent double counting recognises the fact that many of the individual differences variables implicated in suicidality are state-like as well as being trait-like (Williams, Crane, Barnhofer, and Duggan, 2005). In addition to this, in a recent study using a clinical sample of depressed adolescents, trait social perfectionism interacted with daily hassles to predict concurrent suicide potential; therefore, providing further support for perfectionism as a vulnerability factor within the premotivational diathesis–stress phase of this theory (Hewitt, Caelian, Chen, and Flett, 2014).The differential activation model of suicidal behaviour accounts for these trait-and state components (Williams, Barnhofer, Crane and Beck, 2005; William, Crane, et al, 2005). This indicates the association that are manifested when an individual experience low mood and when the same mood is activated again, thus an experience of suicidal ideation during an episode of depression is likely to reoccur during another episode of depression. The association may be dormant, but quickly activated with lower threshold of low mood at any other period. Therefore, it is this distinction activation that accounts, in part, for the increased repetition of suicidal ideation/behaviour once initially experienced. The extent to which differential activation acts as a motivational and/or volitional moderator varies as a function of whether suicidal ideation and/or behaviour are experienced during a depressive mood or triggered by defeat or entrapment (O'Connor, 2011a; O'Connor, 2011b).

Current investigation has examined sensitivity to emotional pain as another probable influence inside the premotivational phase of the integrated motivational volitional theory.

Exploring this in an adult community sample, emotional pain sensitivity was found to be highest in those who had enacted self-harm, followed by those reporting self-harm ideation, and lowest in controls with no history of self-harm thoughts or behaviours (Kirtley, O'Carroll, and O'Connor, 2015a). Moreover, within the enactment group, higher sensitivity to emotional pain was positively correlated with higher levels of perfectionism. Individual's degree of sensitivity or reactivity to emotional pain varies, therefor it influence the elevation of the vulnerability for the manifestation of suicidal ideation and suicidal act (Kirtley, O'Connor, 2015b).

Motivational and Volitional Phases

The arrested flight model of suicidal behaviour (Williams, 2001) is one of the major driver for integrated motivational volitional model. It was posit by arrested flight theory that the development of suicidal ideation is predicated on feelings of entrapment that have been triggered by experience and or humiliation this happened first in the motivational phase. The central roles of defeat and entrapment in the etiology and course of psychological health arose out of the work on the origins of depression (Gilbert and Allan, 1998), Williams (2001), extended this to encompass suicidal behaviour by arguing that, when the desire to escape from a defeating and or humiliating situation is thwarted, feelings of entrapment ensue, for when positive future thinking is absent (Williams, Crane, et al., 2005). There are now increasing empirical evidence for the significance of defeat and entrapment in the etiology of suicidal behaviour (O'Connor, 2003; O'Connor, Smyth, Ferguson, Ryan, and Williams, 2013).

Defeat and Humiliation within the integrated motivational volitional model, it was hypothesized that sensitivity to signals of defeat and humiliation are determined by background factors (drawn from the premotivational phase). This sensitivity to stimulus of defeat may be amplified by what is believe others expect of an individual. In suicidal individuals, such expectations are often extreme and irrational, with the suicidal individual believing that they will be considered a failure if they do not achieve certain standards (O'Connor et al., 2007). Individuals with such beliefs are thought to score highly on the personality dimension called socially prescribed perfectionism (O'Connor et al., 2007).

Socially prescribed perfectionism assesses the degree of personal belief that others hold unrealistically high expectations of one's behaviour and that they would only be satisfied with these standards (O'Connor et al., 2016).

In an adolescent study (O'Connor, Rasmussen, and Hawton, 2010), obtained evidence that points to one mechanism through which socially prescribed perfectionism may increase the risk of self-harm. They tracked 500 adolescents over a period of 6 months and documented the number of acute life stressors that they had experienced over this period as well as recording their socially prescribed perfectionism levels when they entered the study. Therefore, O'Connor et al., (2016) was able to determine the extent to which the personal experience of acute life stress and socially prescribed perfectionism predicted self-harm. Those adolescents who had experienced high levels of acute life stress (including bullying, sexual abuse, concerns about sexual orientation) were more likely to report self-harm than those who reported low levels of stress (31 out of the 500 adolescents reported self-harm during the six months of the study). In addition, however, they found evidence of a perfectionism–stress interaction, although the moderating effect was not quite as anticipated. The statistics proposed that socially prescribed perfectionism lowers stress tolerance (the level above which stress becomes distressing). That is, it seems to have a "stress-threshold lowering effect" (O'Connor et al., 2010): among those high on social perfectionism, relatively low levels of acute stress were connected with a self-harm episode (O'Connor et al., 2016).

From defeat and humiliation to entrapment: threat to self-moderators.

O'Connor et al., (2016) stated that, entrapment can be triggered by defeat/humiliation, it is not predictable that the experience of defeat/humiliation will lead to entrapment: threat to self-moderators (TSMs) have the potential to increase the likelihood that the former leads to feelings of entrapment. TSMs are defined as any variable that diminishes or fortifies the connection amid threat to self-appraisals (such as defeat/humiliation, and entrapment). Components contained in the TSM are triggered in reaction to a defeating or humiliating appraisal (usually following the experience of negative life stress or a change in severity of existing chronic stress). Social problem solving is implicated as a moderator of the defeat–

entrapment relationship because it is activated in an attempt to resolve the defeating/humiliating situation. Over-general autobiographical memory biases are also involved here as they are known to be connected with impaired social problem solving (Williams, 2001).

Over-general memory bias impairs negatively on problem solving and it leads to elevated emotional distress (Williams et al., 2007), because of this it is stated that over-general memory is incomplete, and lacks specific details Rumination defined as enduring and repetitive, self-focused thinking in response to depressed mood (Rippere, 1977) is another component of TSM, Morrison and O'Connor, (2008), established the relationship of rumination and suicidal behaviour. Smith, Alloy, and Abramson, (2006), found that rumination predicted the presence and duration of suicidal ideation over 2 and a half years. A particular type of rumination known as brooding rumination, is particularly deleterious in the suicidal process. Treynor, Gonzalez, and Nolen-Hoeksema (2003), brooding is the "passive comparison of one's current situation with some unachieved standard". This type of thinking is problematic because an individual is only thinking about the cause(s) of their distress, they are not actively seeking to solve the distress but dwelling on the distress, while comparing their situation unfavourably with their desired outcome, but there is to critical plan to actively engage the process to attained the desired outcome and to make the case worse this thinking could be imaginary problem. Brooding rumination elevated the impact of defeat entrapment. This type of thinking can escalate and there could be large time lag before it manifest in suicidality (Williams, Crane, et al., 2005). Rumination also interfere with autobiographical memory and social problem solving (Watkins, Teasdale and Williams, 2000), thereby highlighting further mechanisms that account for former's relationship with suicidality. Rumination is elevated for individuals with high score on inventory of self-criticism (O' Connor and Noyce, 2008).

From entrapment to suicidal ideation/intent: Motivational Moderators

The integrated motivational volitional model proposed that the presence or absence of motivational moderators increase or decrease the probability that an entrapment will results to suicidal ideation and intent. Absence of positive future thinking lacks of goal re-

engagement, and low level of social support would play the role of motivational moderators, which increase the likelihood that suicidal ideation will ensure as impact of the experience of entrapment. Research findings have identify hope as a potential moderator that eliminate or reduce the relationship between entrapment and suicidal ideation. A form of future thinking that is characterised by dearth of positive thinking is predominantly implicated in the etiology of suicide risk independent of depression (O'Connor, et al., 2016). Conversely, suicidal individuals are not engrossed by imminent doom or overwhelmed by negative future expectations (O'Connor et al., 2007). This finding may suggest that patients with higher levels of intrapersonal positive future thinking, over time believe that they have not achieved what they expected to, and this realization may be associated with more intense suicidal ideation and suicidal behaviour (O'Connor et al., 2016).

Self-regulation is defined as "the many processes by which the psyche exercises control over its functions, states and inner processes" (Vohs and Baumeister, 2004). Certainly, one of the processes implicit in adaptive self-regulation is the successful identification, pursuit, and attainment of goals. Moreover, the self-regulation literature has recently been extended to include dysfunctional regulation, characterized by a failure to relinquish a goal that is not attainable and the subsequent re-engagement in new goals when existing goal pursuit is thwarted (O'Connor et al., 2016). This self-regulatory approach has merit, O'Connor et al.,(2009), found levels of suicidal ideation a few months following a suicide attempt to be significantly higher among those who had reported high levels of disengagement and low levels of goal re-engagement in the 24 hours following their suicide attempt. However, the relationship between goal regulation and self-harm is affected by age (O'Connor et al., 2012). Precisely, whereas the absence of goal re-engagement was consistently associated with self-harm, there was evidence that among older adults their risk of repeat self-harm (following an index suicide attempt) was elevated if they also reported high levels of disengagement. Conversely, young people who were engaged in painful goal engagement, defined as those who reported low levels of goal disengagement and low levels of goal re-engagement, were also at increased risk of self-harm. In totality, these findings suggest that goal adjustment is another potential motivational moderator that could be targeted therapeutically to reduce the likelihood that entrapment triggers suicidal ideation/intent.

From suicidal ideation or intent to suicidal behaviour: Volitional moderator

The transition from suicidal ideation or intent to suicidal behaviour (suicidal attempt) is accounted for in this theory which majority of other theories do not accounted for, this help to determine the condition and situation that placed an individual at greater risk. The group of factors responsible for this progression comes under the volitional moderators phase, a volitional moderator is defined as any factor that bridges the suicidal intention–behaviour gap (any factor that renders it more or less likely that an individual will act on their suicidal intent). This behavioural enaction phase is derived from the theory of planned behaviour, and is consistent with Williams' arrested flight model and Joiner's Interpersonal-Psychological model of suicidal behaviour (Joiner, 2005). Other details provided by this theory in explaining the transition from suicidal ideation to suicidal attempt is having access to the means of suicide, having the capacity to attempt suicide, knowing others who have engaged in suicidal behaviour (exposure to suicide), amd impulsivity are examples of the factots in volitional motivational phase. (O'Connor, 2011a). It was posit that for adolescents who had ideation and attempted suicide the influence of (1) knowing others who have engaged in suicidal behaviour (exposure to suicide), and (2) impulsivity played a key role (O'Connor, 2011a).

2.2.20 Three-step theory of suicide

This theory also refer to as 3ST, posit that the combination of pain, hopelessness, connectedness and suicide capacity are implicated for progression from ideation to attempt to occur.

Step 1: Development of suicidal ideation

According to Klonsky and May (2015), for an individual to develop suicidal ideation there must be the presence of "Pain" which could be from different sources of pain. Such as psychological or emotional pain or physical pain, social pain (community isolation). The pain serves as a punishment that conditioned of discourage an individual from enjoying life or engaging with life. That is experience of chronic distressful pain in the course of daily living will be perceived as punishment for living therefore decrease the desire to live a meaningful life by so doing initiating suicidal ideation. Factors implicated for this steps are

Burdensomeness and low belongingness (Joiner et al. 2010), defeat and entrapment (O'Connor, 2011), negative self-perception (Baumeister, 1990). This pain that started the process of ideation in not sufficient by itself to produce the ideation without the presence of hopelessness as stated by this theory.

Step 2: Strong versus moderate ideation

At this stage looked at the role of connectedness of an individual to other people, job, project or interest. The level of connectedness will informed whether an individual perceived life as worth living or not. An individual who experience pain and hopelessness and develop suicidal ideation but with good connectedness will perceived life as still worth living in the face of challenges with moderate level of suicidal ideation ("Sometimes I think I might be better off dead") but if the connectedness is weak then such an individual will develop strong suicidal ideation ("I will kill myself if I had the chance"). The determining factor in progression from moderate to strong suicidal ideation is whether connectedness is greater or lower that pain and hopelessness (Klonsky and May 2015).

Klonsky and May (2015), "disrupted connectedness is similar to low belongingness and burdensomenessas described in Joiner's Interpersonal Theory. The primary role of connectedness is to protect against strong suicidal ideation in those at high risk due to pain and hopelessness. Thus, the emphasis on pain, hopelessness, and connectedness in explainings uicidal ideation is not meant to suggest that other traditional risk factorsf or suicide are irrelevant. Indeed, numerous disorders (depression), states of mind (self-criticism), personality traits (borderline personality), temperaments/dispositions (negative emotionality), and experiences (interpersonal loss) are highly relevant to suicidal ideation. However, they are relevant in a specific way, through their effects on pain, hopelessness, and/or connectedness. For example, depression can relate to suicidal ideation to the extent that it influences pain, hopelessness, and/or connectedness, but not beyond".

Step 3: Progression from ideation to attempts

The significant determinant whether an individuals with strong suicidal ideation progress to suicidal attempt is the presence of capability to make such attempt. This collaborated with

the position of Interpersonal theory of suicide third construct of acquired capability for suicide (Joiner et al., 2010, Klonsky and May 2015). Individuals are by nature and nurture conditioned to avoid pains, injury and death. In view of this conditioning it is difficult for an individual with strong suicidal ideation to act on it without the capability to do so. The construct of acquired capability for suicide was expanded in two ways by proposing three explicit groups of variables that contributed to suicide capability, namely: (1) dispositional, (2) acquired, and (3) practical.

Dispositional stated that genetic variables drives such as pain sensitivity or blood phobia. That is an individual born with low pain sensitivity will have a higher capacity to attempt suicide than an individual born with squeamishness or phobia of blood. Acquired was postulated just as Joiner (2005) did, it stated that habituation to experience and or exposure that relate to pain, injury, fear and death over period of time can lead to higher capacity to attempt suicide. Practical refers to tangible factors that could facilitate the suicide attempt. This could emanated from the knowledge of and access to disastrous means of attempting suicide like firearm, substance or drug will facilitate acting on the suicidal ideation than an individuals that lacks such knowledge and access to means of attempting suicide. For example medical practitioners and anesthesiologists have been recording elevated suicide rates. Three steps theory of suicide suggested that suicide rates are elevated because they have both the extensive knowledge of how to end life with less pain and they also have easy access to the required drugs. Based on this understanding it holds that dispositional, acquired and practical factors influenced the capacity of an individual to attempt suicide, based on this it could be inferred that an individual with strong suicidal ideation will only act on it only when the have the capacity to do so (Klonsky and May, 2015).

2.2.21 Summary of Reviewed Theoretical Framework

As documented, diverse theories have tried to explain the variables in this study from different perspectives and this has helped a better understanding of the variables. Basic theories that explain theories of depression are: Genetic Theories (heredity appears to influence emotional liability, basic arousal levels, stimulus threshold levels and these ultimately may be related to depressive experience) Psycho-behavioural Theories and

Learned Helplessness Theory. When humans or animals are trapped in situations in which they can no longer avoid harm or threat, they develop a sense of helplessness and act "depressed". Cognitive theories of depression focus on the role of thought processes. Theories of suicide include the Psychodynamic view; many psychodynamic theorists believe that suicide results from depression and from anger at others that is redirected toward oneself. The Sociocultural view, Egositic, Altruistic and Anomic suicide are those committed by individuals whose social environment fails to provide stable structures, such as family and religion, to support and give meaning to life, leaving individuals without a sense of belonging. The Biological View uses family pedigree studies to support the position that biological factors contribute to suicidal behaviour.

According to Klonsky and May, (2015) Earlier theories that could be classified into traditional theories of suicide that had sought to explain reasons for suicide like Shneidman (1985, 1993) explained suicide as a response to overwhelming pain (i.e., psychache), Durkheim (1897/1951) emphasized the role of social isolation, Baumeister (1990) described suicide as an escape from an aversive state of mind, and Beck and Abramson (Abramson, Alloy, Hogan, Whitehouse, Gibb, Hankin, and Cornette; 2000; Beck, 1967) highlighted the role of hopelessness. The immerse contribution of these theories have been useful in suicide research and prevention (Klonsky and Alexis, 2015). It must be noted that some of some select elements of these theories could inhibit the progress in understanding suicide. They fail to discriminate between suicide thoughts and suicide behaviour. This discriminate between suicide thoughts and suicide behaviour is pivotal because not all the individuals with ideation went on to attempt suicide. (Klonsky and May, 2014; Nock et al., 2008).

A new generation of theories of suicide (An "ideation-to-action" framework): Three theories of suicide positioned within the "ideation-to-action" framework are (1) Interpersonal theory of suicide (Joiner 2005, Van Orden, Witte, Cukrowicz, Braithwaite, Selby and Joiner 2010), (2) Integrated Motivation-volitional theory of suicide (O'Connor 2011), (3) Three-step theory of suicide (Klonsky and May 2015). Thomas Joiner's Interpersonal Theory of Suicide spawned a new generation of suicide theories that utilize an ideation-to-action framework. These theories regard the development of suicidal ideation

and the progression from ideation to attempts as distinct processes that require distinct explanations. Joiner (2005) introduced the Interpersonal Theory of Suicide. Joiner introduced a framework by which (a) suicidal ideation and (b) the progression from ideation to attempts were treated as separate processes that come with separate sets of explanations and risk factors. Joiner proposed a specific application of the framework: Perceptions of low belongingness and high burdensomeness combine to bring about desire for suicide, whereas high capability for suicide facilitates potentially lethal suicide attempts.

Integrated Motivation-volitional theory of suicide explain those factors that classified under premotivational phase that serves as underling factors that could trigger events that influence the ideation or intention and then progression to the next phase which is classified as the volitional phase which is the phase where the behaviour is enacted. The basic tenets of the three- step theory as stated that (a) that the combination of pain and hopelessness must be present in an individual for suicidal ideation to develop, (b) individual with reasonable level of connectedness is a strong protective factors that prevents escalating of suicidal ideation in individuals with the presence of both pain and hopelessness, and (c) an individual progress from ideation to attempt suicide when such individual have acquired sufficient capacity bear the pain and fear related to attempting suicide. This capacity is attained through dispositional, acquire or practical factors that such individual is exposed to.

2.2.22 Empirical Review of Literature

Studies have shown that over 2,000 teenagers, or 11 of every 100,000, commit suicide in the United States each year. In addition, as many as 500,000 teenagers may make attempts (Popenhagen and Qualley, 1998). About half of teenage suicide, like those of adults, have been tied to clinical depression, low self-esteem, and feelings of hopelessness, many adolescents who committed suicide also appear to struggle with anger and impulsiveness (King and Apter, 2003;Sheras, 2001) Likewise, as many as half of all adolescents experience suicide ideation (Goldman and Beardslee, 1999).

2.2.23. Related Studies on Suicidal Ideation

Suicidal ideation in Nigeria is relatively an emerging field of study and reliable epidemiological and clinical data are relatively scanty. The most available literatures are

found in journals, textbooks, inserts and seminar papers, most of which have foreign backgrounds. Suicidal ideation refers to a deliberate act intended to end one's life in order to escape unbearable sufferings or to help change adverse conditions of living (Blaauw and Kerkhof, 2005). It is the intentional act of taking one's own life or the destruction of one's own interest or prospects (George, 2007). Maris (2007) described suicidal ideation as problem solving behaviour. Udoh (2002) saw suicidal ideation as any willful act which is designed to end one's own life. Suicide is a crime against one self, nature, humanity and God. LaGreca (2008) referred to it as the conscious, intentional taking of one's life through an identifiable discrete act. Most suicides recorded in early history involved themes of regret and atonement. For instance, the Old Testament described the suicide of Samson seemingly as a self-inflicted punishment for failing to stand strong in his faith. The New Testament described the suicide of Judas Iscariot, who killed himself in an attempt to atone for his betrayed of Jesus of Nazareth. Suicidal ideation has been an age-long phenomenon (Stillion, Mc Dowel and May, 2004).

George (2007) viewed suicidal ideation in a metaphorical sense, as the willful destruction of one's self-interest. A group of scholars also defined suicidal ideation as the intent to commit suicide or as having ever attempted suicide in lifetime. They further noted that it implies all the intentions, ideations or actions pertaining to, leading to, or involving suicide (Walter, Vaughan, Armstrong, Krakoff, Maldononado and Mc carthy, 2005). Suicidal ideation demonstrates that something is fundamentally wrong either with the individual or with the situation in which the individuals exists or with both the individual and the situation. Suicidal ideation is a conglomeration of some seemingly insurmountable personal problems of individuals which makes them think that the only solution to their problems is death . Their main purpose is to seek a solution to an overwhelming problem. Kerkof (2004) asserted that suicidal ideation is sometimes associated with the mental health status of individuals who cannot cope with their lives. Suicidal ideation involves not only the pain, but also the individual's unwillingness to tolerate the pain, the decision not to endure it, and the active will to stop it.

Suicidal ideations, which are gesture's thoughts, and plans about suicide, are precursors to suicide attempt or completed suicide. Suicidal ideation is a known risk for suicidal death (CDC, 2006). They may reflect plead for help from people who still wish to live and should not be dismissed lightly. For one to commit or attempt suicide, one has to think about doing so, plan about the execution and even write death threats, and these are ideations. Ideation precedes all planned suicides or suicide attempts except accidental suicides or death. No completed suicide or attempted suicide will be carried out without thinking about it, planning it, and sometimes writing death threats. All these are suicidal ideations (George, 2007). Marecek (2007) outlined some of the causes of suicidal ideation to include discrete crisis usually involving inter-personal difficulties such as disappointment, or difficultly with a love relationship. Others were failure in school, family conflicts, and household related conflicts. They further included unwanted pregnancy, rape, drug addiction and frustrated urges as contributors to suicidal ideation. Scholars such as Pillary and Vanderveen (2001) averred that families that suffer chronic tension, marital conflict, poor communication, poor problem identification, role conflict and cohesion were statistically associated with suicidal ideation, particularly among women. Similarly, gender linked tensions were internationally associated with suicidal ideation, particularly in Asian countries and in countries where women have low social status (Canetto, 2006).

Anomic suicidal ideation results from the lack or regulation of the individual when the norms governing existence no longer control that individual (feels let down by the failure of social institutions), such as a business person committing suicide after a stock market crash or one suddenly losing his or her job (Stillion, et. al, 2005). In fatalistic suicidal behaviour, one dies in despair of being unable to make it in a society, allowing little opportunity for satisfaction on individual fulfillment. Both the altruistic and fatalistic suicidal behaviour involve excessive control of the individual by society (Kastenbaum, 2006).Scholars have also attributed suicidal ideation to many psychological states, including hostility, shame, guilt, anxiety, inferiority complex, dependency and disorganization. Krauss (2006) believed that suicidal behaviour results when an individual is deprived of a cherished goal or relationship and destroys the representation of the goals or object within the self. This assertion was supported by Appel (2007) who averred that a broken cherished love relationship could lead to suicidal behaviour. Shneidman (2008) outlined four categories of suicidal ideation:

surcease, psychotic, cultural and referred. Surcease suicidal ideation is attempted with the desire to be released from pain, emotional or physical. For example, a person with a painful terminal illness who wishes to escape further suffering may perceive suicide as a way to do so. This type of suicidal ideation is sometimes referred to as "auto- euthanasia" i.e.self-administered mercy killing. Also, psychotic suicidal behaviour results from the impaired logic of the delusional or hallucinatory state of mind associated with clinically diagnosed schizophrenia. In the manic-depressive psychosis, the victim may try to eradicate the psychic malignancy or punish himself or herself by self-destruction, even though there is no conscious intention to die.

Cultural suicidal ideation results from interactions between self-concept and cultural beliefs about death. In medieval Japanese society, ritual suicide called *hara-kiri*, or *seppuku*, was culturally accepted, even demanded. In certain circumstances, especially among some castes in India, *suttee* was practiced, which called for the wife of a nobleman to throw herself upon a funeral pyre (a heap of wood upon which a corpse is burnt) (Shneidman, 2008). This was reiterated by George, (2007).when he said that until modern times, certain castes in India practiced suttee, which called for the wife of a nobleman to throw herself upon a funeral pyre of her husband in honor of the dead nobleman. The last types of suicidal ideation are referral suicidal ideation which results from destructive logic, such that victims "confuses the self as experienced by others". In other words, the victim's self-concept is confused with imaginings of what others think about him. The victims of referred suicidal ideation tend to feel lonely, helpless and fearful. They typically experience difficulties in establishing and maintaining meaningful personal relationships. These problems with self-identity coupled with an inability to feel comfortable, relating to others, often involved the victim's self-perception as a failure. The implication of Schneidman's categories of suicidal ideation is that students with terminal illness like cancer or AIDS, or mentally deranged persons might engage in suicidal ideation or behaviour. Those who have negative self-image about themselves or those confused of what others think about them might also be tempted to engage in self-destructive behaviours (Shneidman, 2005, George, 2007). Scholars found that suicidal ideation is more common among adolescents girls than boys. (Evans, Hawton, Rodham and Deeks, 2005). The association of ideation with suicide attempt does not differ by sex (Reinherz, Tanner, Berger, Beardslee and Fitzmaurice, 2006). A group of researchers

asserted that, although, girls more often attempt suicide, boys more often, employ lethal means to do so, and more often die by suicide (Evans, Hawton, and Rodham, 2005).

The National Institute of Mental Health ([NIMH], 2003), maintained that a better understanding of the prevalence of suicidal ideation in adolescents is of special interest (Kuen, 2006). Suicidal ideation is the least commonly endorsed symptom experiencing an episode (54.5%), yet the presence of suicidal ideation is an important prognostic (foretelling or warning) indicator as it is linked with worse clinical features of major depressive disorder among adolescents, including earlier first on-set, longer episode duration, and shorter time to recurrence. Suicidal ideation and suicide attempts are common among young people and are important factors for completed suicide in both short term and long term longitudinal studies (Brown, Beck, Steer and Grisham 2004). Sun, Hui, and Watkins, (2006) surveyed 433 Chinese adolescents to investigate the simultaneous relationships of family, school support and peer support, as well as the mediating relationship of self-esteem and depression to adolescent suicidal ideation. They drew their sample of 239 boys and 194 girls from four schools located in public housing areas and two in private housing areas. From this sample, 26% had suicidal ideation, 2.8% expressed suicidal intent and 3.2% had serious suicidal intent. The results showed that family cohesion, conflicts, teacher support and peer support significantly predicted self-esteem and depression, with depression being a strong mediator of suicidal ideation. Liu *et al*. (2005a) reported on an epidemiological survey of 1.362 adolescents from five high schools in Shandong, China. Overall, 19% of the sample reported suicidal ideation and 10.5% reported deliberately trying to hurt or kill themselves. Howard and Wang, 2005 found strong associations between suicidal behaviour and adolescents who have been sexually abused. Omigbodun, et al. (2008) stated that psychosocial factors were substantial predictors of suicidal behaviour.

The prevalence of suicidal ideation has been known to vary with several factors including sex, nationality, ethnicity, socio economic problems (Canino and Roberts, 2004), yet most of the studies have had adolescents and youths as their focus. While there have been studies on suicidal ideation of adolescents in civilized countries of the world, (Reynold and Mazza, 2006, Roberts, 2008) there is paucity of data on the suicidal ideation of in-school adolescents in

Nigeria causing, majority of available literatures to be taken from foreign journals. In Nigeria, suicidal ideations are regarded as taboos. In the South Eastern States of Nigeria, suicide is described as bad death and an abhorred act. It is also labeled as an immoral and abhorred act in many other cultures of other parts of Nigeria. For example, the Ibibio of Akwa Ibom state describe suicide as *"Uyire Ekpan* "that is bad death and abhorred act (Atiati, 2006). Such actions are sometimes concealed and shrouded with secrecy by the family members of the victims. This is to avoid stigmatization of the family member by the entire community. This accounts for the dearth of data on suicidal ideation in Nigeria. Research into suicidal behaviour in Nigeria is very limited.

The few studies on suicidal behaviour in Nigeria were based on clinical data. A six-month prospective study on attempted suicide in three hospitals in a city in southwest Nigeria (Odejide, Williams, Ohaeri and Ikuesan 1986) revealed that 39 out of 23,859 (0.16%) patients who presented to these hospitals had attempted suicide. A different study looked at the pattern of autopsy results of deaths arising from suicide over an 11-year period in another city in southwest Nigeria and reported a suicide rate of 0.4 per 100,000 population with a male to female ratio of 3.6 to 1 (Nwosu and Odesanmi, 2001). Both studies found higher rates in males, that most victims were in their 20s and that the use of pesticides was the most common method of self-harm.

In Nigeria, suicide is a criminal act punishable by imprisonment (Federal Government of Nigeria, 1958). This would certainly deter those affected from presenting for assessment or treatment, making it difficult to establish the nature, extent or correlates of suicidal behaviour in the community. For children and adolescents, who make up almost half of the population of Nigeria, there are no records or data that can show details of their patterns of suicidal ideation or behaviour, or on the number of lives lost to completed suicide. According to a research carried out among in school adolescents by Omigbodun, Dogra, Esan, and Adedokun, (2008), the result indicated that multiple psychosocial factors such as sexual abuse, physical attack and involvement in physical fights were significant predictors of suicidal behaviour.

2.2.24. Related Studies on Adolescents

Adolescence is a transitional stage of physical and psychological human development that generally occurs during the period from puberty to legal adulthood (Merrian-Webster, 2012). Adolescent puberty is a period of several years in which rapid physical growth and psychological transformation occur, climaxing in sexual maturity. The typical commencement of puberty is at 10 or 11 for girls and age 11 or 12 for boys (Steinberg, 2009). Researchers have emphasized that adolescent growth spurt is a rapid increase in the individual's height and weight during puberty resulting from the concurrent release of growth hormone, thyroid hormones and androgens (Steinberg, 2009). Males experience their growth spurt about two years later, on average, than females. During their peak height velocity, adolescents grow at growth rate nearly identical to that of a toddler about four inches (10.3cm) a year for males and 3.5 inches (9cm) for females (Corsini, 1987; Comer, 2007). It is generally agreed by psychologists that adolescence is a time for rapid cognitive development (Smith, Smith and Handler, 2007). Piaget describes adolescence as the stage of life in which the individual's thought start taking more of an abstract form and the egocentric thoughts decrease. It allows the individual to think and reason in a wider perspective. Compared to children, adolescents are more likely to question others' assertions, and less likely to accept facts as absolute truths. Through experience outside the family circle, they learn that the rules they were taught as absolute are in fact relativistic (Smith et al, 2007).

2.2.25. Related Studies on Depression

Depression is a severe psychological disorder which affects the functioning of adolescents in all aspects of their life. It was documented that 14 percent of the adolescents aged 12 to 17 (approximately 3.5 million adolescents) experienced a major depressive episode in their lifetime, and an estimated 9.0 percent (2.2 million adolescents) experienced at least one major depressive episode in the past year. African adolescents aged 16 or 17 were more than twice as likely to report past year major depressive episode as compared to those aged 12 or 13 (12.3% vs. 5.4%) in 2004 (Hallfors, Waller, Bauer, Ford and Halpern, 2005). It is very important to recognised that factors such as culture, location and samples differences are related to prevalence of depression. A study which used Beck's depression questionnaire found that among 4,020 in-school adolescents in Rahst, North of Iran. 34 percent of the participants

suffered from depression (Modabber –Nia et. al, 2007). Some scholars found that 44.3 percent of the in-school adolescent and other scholars found that 39.1 percent of adolescents in Africa had depression (Masood, 2002; Hossani and Mousavi, 2004). Similarly, Ghahari (2004) reported that 27 percent of adolescents were depressed in Iran. While, Frodj, Nissinen and Pelkonen (2008) indicated that the rate of depression among American adolescents were 18.4 percent for girls and 11.1 percent for boys.

Empirical evidence have demonstrated that one of the mental disorders which have a particularly high prevalence is depression. (Eric et. al 2007). Based on World Health Organisation (WHO) information cited in the publication of Modabber-Nia et al. (2007), depressive disorders are the fourth leading health problem in the world. This suggests that depressive disorders may become the second most disabling disease of mankind by the year 2020. Physical signs of depression in adolescents include appearance and hygiene neglect, pale and tired appearance, sad or irritable affect, psychomotor retardation or agitation, impaired concentration and diminished abstract reasoning for their age (Arnett, 2005). Mild episodes are characterized by the presence of only five or six expressive symptoms, and other mild disability or the capacity to function normally but with substantial and usual effort. Major depressive disorder without psychotic features is characterized by the presence of most criteria symptoms and observable inability to function. Moderate episodes have a severity between mild and severe (APA, 2000). Atypical presentation of major depressive disorder may include increased reactivity to rejection, lethargy increased appetite, cravings for substance. Major depressive disorder may include, increased relatively to rejection, lethargy, increased carbohydrates and hypersomnia.

Lifetime depression rates rise to 14% for adolescents between ages 15 to 18 from an average of less than 3% in childhood (Lewinsohn, Rohde and Seeley, 1998). At any given point in time, 3% to 8% of adolescents face major depressive disorder, making it more common than asthma and most other chronic medical problems of this age group (Lewinsohn et al., 1998). Adolescents with major depressive disorder tend to display more sleep and appetite disturbances, delusions, suicidal ideation/ attempts and impairment of functioning than younger children, but more behavioural problems, and fewer neuro-vegetative symptoms than

adults with major depressive disorder. Arnett (2005) found that girls tend toward more severe depression on negative mood scales, while boys tend toward more interpersonal problems. Parents often report externalizing symptoms, such as irritability, moodiness, whininess and loss of interest, while adolescents when questioned, report internalizing symptoms, such as sadness, suicidal thoughts and sleep disturbances not apparent to parents (Arnett, 2005).

Adolescent depression, a disorder occurring during the teenage years, is marked by persistent sadness, discouragement, loss of self-worth and interest in daily activities. True depression in teens is often difficult to diagnose because normal adolescent behaviour is marked by both up and down moods due to the hormonal changes teens experience (Comer, 2007). Researchers who were responsible for the National Survey on Drug Use and Health in research Triangle Park, North Carolina, USA estimated that 14 percent of adolescents aged 12-17 (approximately 3.5 million adolescents) had experienced at least one Major Depressive Episode (MDE) in their lifetime and that 9.0 percent (2.2 million adolescents) had also experienced at least one MDE in the past one year. In-school adolescents aged 16 or 17 had more depression in the past year compared with adolescents aged 12 or 13 (12.3 vs. 5.4%). Adolescents with depression often present with psychosomatic complaints, such as headaches, stomach ache, and other vague physical complaints without a definable cause (Richardson and Katzenellenbogen, 2005). In some cases, a pattern of somatic symptoms may emerge, such as symptoms that increase before the start of the school day. These symptoms may not initially be recognized as psychosomatic and only after repeated presentation with negative physical or laboratory findings is recognized as possible symptoms of depression or anxiety.

Theoretical Explanation of Trauma

Basic theories that explain trauma are: biological and genetic factors, personality, childhood experiences, social support and severity of trauma. Clearly, extraordinary trauma can cause a stress disorder. The stressful event alone, however, may not be the entire explanation. Certainly, anyone who experiences an unusual trauma will be affected by it, but only some people develop a disorder (Engelhard and Arntz, 2005). To understand the development of stress disorders fully, researchers have looked into the survivors' biological processes,

personalities, childhood experiences, and social support systems and the severity of the traumas.

Biological and Genetic Factors

Investigators have learned that traumatic events trigger physical changes in the brain and body, which may lead to severe stress reactions and, in some cases, to stress disorders. They have, for example, found abnormal activity of the hormone cortisol. and the neurotransmitter/hormone norepinephrine, in the urine, blood, and saliva of combat soldiers, rape victims, concentration camp survivors and survivors of other severe stresses (Delahanty, Nugent, Christopher and Walsh, 2005; Comer, 2007). There is also evidence that once a stress disorder sets in, individuals experience further biochemical arousal and this continuing arousal may eventually damage key brain areas (Delahanty et al., 2005). Two areas in particular seem to be affected: the hippocampus and the amygdala. Normally, the hippocampus plays a major role both in memory and in the regulation of the body's stress hormones. Clearly, a dysfunctional hippocampus may help produce the intrusive memories and ongoing arousal that characterize post-traumatic stress disorder (Bremner et al. 2005, Comer, 2007). The amygdala helps control emotional responses, including anxiety and panic responses. The amygdala also works with the hippocampus to produce the emotional components of memory. A dysfunctional amygdala may help produce the repeated emotional symptoms and intense emotional memories experienced by persons with post-traumatic stress disorder (PTSD) (Protopopescu et al. 2005; Shin et al., 2005). In short, the excessive arousal generated by extraordinary traumatic events may lead to stress disorders in some people, and the stress disorders may produce yet further brain abnormalities. More genetic studies are currently under way to determine whether a particular gene or combination of genes predisposes individuals to posttraumatic stress disorder (Bachmann, Wolint, Schwartz, Jager and Oxenius, 2005).

Personality

Research findings suggest that individual difference affects individuals personality profiles, attitude and coping styles with some individuals more subsetible to develop stress disorder than others. (Chung, Dennis, Easthope, Werrett, andFarmer, 2005a). Individuals with psychological disorders who also experience rape as a victim or who were struggling with

stressful life situations are more likely to develop stress disorder (Darvres-Bornoz, Lemperiere, Degiovanni, and Gaillard, 1995). Research has also found individuals who uses negative schema to view life generally assess life events as beyond their control and as a result tend to develop more profound stress symptoms after sexual or other forms of immoral assaults than individuals who perceived greater capability to take control of their lives in spite of the challenges. (Bremner, 2002; Regehr and Marziali 1999). By the same token, individuals who generally find it tough to see the benefit and possible positive outcome from spiteful event or situations, tends to have maladjustment after experience of traumatic events than individuals who belief that there is positive benefit in every aversive situations and therefore welcomes it with positive emotions (gratitude, interest, love) (Bonanno, 2004; Fredrickson, Tugade, Waugh and Larkin, 2003). These findings are in accord with another studies, that a number of individuals respond to stress with a set of positive attitudes, collectively known as resilienc or hardiness that enables such persons to function with a sense of fortitude, control, and commitment (Bonanno, 2004; Oulette, 1993).

Childhood Experience

Certain childhood experiences seem to leave some people at risk for later acute and post-traumatic stress disorders (PTSD). Individuals whose childhood experience have been marked by poverty seems more likely to develop these disorders during encounter with trauma. This implies that individuals whose family members suffered from psychological disorders, who had experienced assault, abuse, or catastrophe at a tender age, or who were below the age of ten when their parents separated or divorced (Koopman, Palesh, Marten, Thompson, Ismailji, Holmes et al., 2004; Shephard, 2004;Ozer, Best, Lipsey, and Weiss, 2003). Such childhood experience may lead to the development of personality profile or attitudes that is associated with stress disorders. Perhaps their early situations taught them that the world is an unpredictable and dangerous place. Such a worldview may help set the stage for PTSD; it may also lead people to react more hopelessly and fearfully to extraordinary trauma, and so increase their risk of developing stress disorder.

Social Support

Research evidence holds that individuals whose social and family support systems are weak have the likelihood of developing a stress disorder after experience of traumatic events

(Simons, Gaher, Correia, Hansen, Christopher, 2005; Ozer et al., 2003). Rape victims, who feel loved, cared for, valued and accepted by their friends and relatives recover more successfully. So do those treated with dignity, esteem and respect by the criminal justice system (Murphy, 2001; Davis, Brickman, and Baker, 1991; Sales, Baum, and Shore, 1984). In contrast, clinical reports have suggested that poor social support has contributed to the development of post-traumatic stress disorder in some combat veterans (Dirkzwager, Bramsen, and van der Ploeg, 2005).

Severity of Trauma

The level of the severity, duration and nature of traumatic events can determine whether one will develop a stress disorder or not. Some events can override even a nurturing childhood, positive attitudes, and social support (Dikel, Engdahl, and Eberly, 2005). The more severe the trauma and the more direct one's exposure to it, the greater the likelihood of one developing a stress disorder (Chung et al., 2005a).

2.3. Summary of Related Studies

Review of different related empirical studies and theories have demonstrated the danger associated with familial factors and the adverse effects of depression and suicidal ideation on mental health of adolescents across the western region and in developing countries. Though the larger families size have been identified to have association with several family risk factors but there are scarce of studies that have document the relationship of familial factors and depression and suicidal ideation (Wagner, Schubert and Schubert, 1985; Sander and McCarty, 2005).

2.4. Conceptual Framework of the Study

In this research, all variables of primary interest to the research are treated in continuous measures. Depression, Suicidal ideation exist as outcome variables, while family factors (family size, family type and birth order) are considered as factors affecting depression and suicide ideation. The interrelationship of these variables is shown in the conceptual framework below:

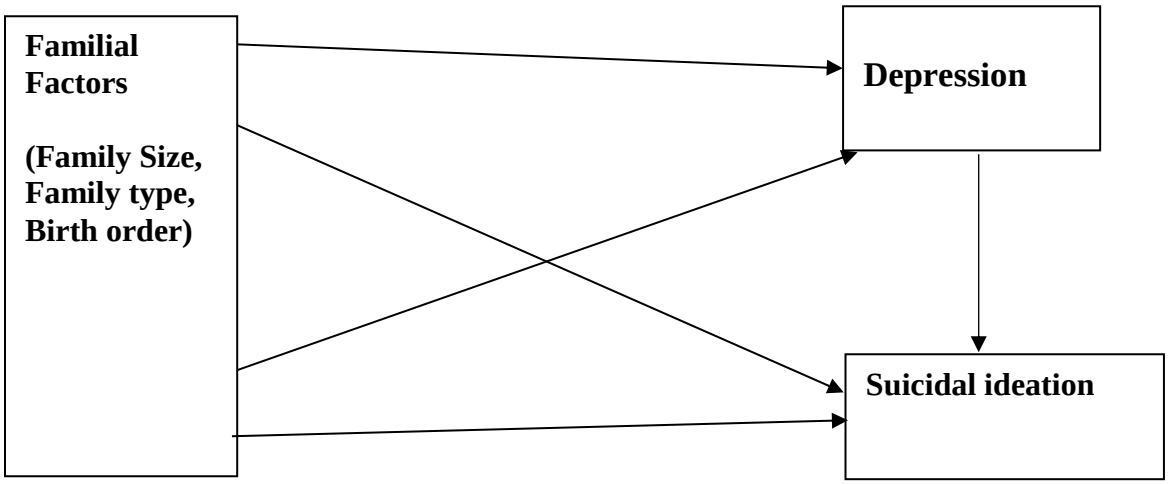

Figure 1 Conceptual framework

2.5 HYPOTHESES

In order to investigate the relative contributions of certain socio-demographic variables (age, gender, class in senior secondary school) and family variables (family size, family type, birth order) as factors associated with depression and suicidal ideation among in school adolescents in Ibadan, Oyo State, Nigeria, the following hypotheses were drawn for the research:

1. **Hypothesis one** stated that in-school adolescents from urban LGAs will significantly report more depression than those in Semi-urban LGAs.
2. **Hypothesis two** stated that in-school adolescents from urban LGAs will significantly report more suicidal ideation than thosein Semi-urban LGAs.
3. **Hypothesis three** stated that family size will significantly influenced depression levels among in-school adolescents.
4. **Hypothesis four** stated that family size will significantly influenced suicidal ideation levels among in-school adolescents.
5. **Hypothesis five** stated that birth order will significantly influence depression levels among in-school adolescents.
6. **Hypothesis six** stated that birth order will significantly influence suicidal ideation levels among in-school adolescents.

7. **Hypothesis seven** stated that in-school adolescents from monogamous family will significantly report more depression than adolescents from polygamous family.
8. **Hypothesis eight** stated that in-school adolescents from monogamous family will significantly report more suicidal ideation than adolescents from polygamous family.

2.6 Operational Definition of Terms

1 Depression: A mental state characterized by feeling of sadness, loneliness, despair, low esteem, and self-reproach. The term refers either to a mood that is so characterized or to an affective disorder. Accompanying signs include psychomotor retardation or at times agitation, withdrawal from interpersonal contact and vegetative symptoms, such as insomnia and anorexia or a low, sad state marked by significant levels of sadness, lack of energy, low self-worth, guilt, or related symptoms. This was measured with **Depression subscale of Trauma Symptom Check-list 40 (TSC-40).**

2 Suicide ideation: Thought of committing suicide. This variable was measured with Positive and Negative Suicide Ideation Inventory (PANSI),

3 Suicide: A self-inflicted death in which the person acts intentionally, directly, and consciously.

4 Suicidal Behaviour: Behaviour that is associated to ending ones' life.

5 Suicide Tendency: predisposition or susceptibility to commit suicide.

6 Adolescents: individuals aged 13-19 years.

7 In-School Adolescents: any adolescent that is attending school and is still in school.

8 Socially Disadvantaged: One that is poor and from a low social class. (from a socially disadvantaged family).

9 Post Traumatic Stress Disorder (PTSD): An anxiety disorder in which fear and related symptoms continue to be experienced long after a traumatic event. An anxiety disorder that occurs after and as a result of a disturbing event in the patient's life. It may be acute, chronic, or delayed.

10 Personality: An individual's unique constellation of consistent behavioural traits or a unique and long-term pattern of inner experience and outward behaviour that leads to consistent reactions across various situations.

Socio-demographic variables such as:

11 Age: The length of time during which a being has existed, which is a period of human life, measured by years from birth, usually marked by a certain stage or degree of mental or physical development and involving legal responsibility and capacity.

12 Gender/Sex: Either the male or female division of a species, especially as differentiated with reference to the reproductive functions, social, cultural roles and behaviour.

13 class in school: Classification of Senior Secondary Class in Nigeria's Educational system into Senior Secondary School Class 1 (SS1), Senior Secondary School Class 2 (SS2) and Senior Secondary School Class 3 (SS3).

14 Family size: Number of persons that make up a family consisting of one or two parents and their children.

15Family: A fundamental social group in society typically consisting of one or two parents and their children.

16 Birth order in the family: refers to the order a child is born, for example first born, second born etc. Birth order is often believed to have a profound and lasting effect on psychological development.

17 Father's Occupation: a father's usual or principal work or business, especially as a means of earning a living; vocationor any activity in which a person is engaged.

18 Mother's Occupation: a mother's usual or principal work or business, especially as a means of earning a living; vocationor any activity in which a person is engaged.

19 Family Type: either monogamy or polygamy

20 Monogamy Marriage with only one person as a mate.

21 Polygamy: The practice or condition of having more than one spouse, especially wife, at one time.

22Familial Factor: "There is a range of factors to consider when looking at diseases or conditions, familial factors refer to elements within a family which account for a condition."

CHAPTER THREE

3.0 METHODS

This chapter contains the design of this study and the instrument that were used to measure the variables of interest.

3.1 Design

This study used cross-sectional survey research design, which is a research study that uses a survey to obtain a description of a particular group of individuals (Gravetter and Forzano, 2009). It looked at description or explanation of familial factors as a predictor of depression and suicidal ideation or suicidal tendency, a variable that could not be manipulated and it is also unethical to attempt such manipulation. The primary characteristic of a correlational design is that it examines the relationship between two or more variables within the same group of people (Korb, 2013).The variables were measured and recorded to obtain a set of scores, the measurements were then reviewed to identify any patterns of relationship that may exist between the variables and to measure the strength of the relationship. This study, therefore, examined the relative contributions of certain socio-demographic variables (age, gender, and class in senior secondary school) and family variables (family size, family type, and birth order) as factors associated with depression and suicidal ideation among in-school adolescents in Ibadan, Nigeria. The independent variable of familial factors was operationally defined as family size, family type, and birth order, while the dependent variable depression was operationalized as low and high, while the second dependent variable of suicidal ideation was operationalized as present and absent. Survey design was considered to be an appropriate option for this study.

3.2 Setting

This study was conducted in Ibadan, Oyo State, Nigeria. Ibadan has eleven (11) Local Government Areas (LGAs). The following five (5) LGAs are classified as the Ibadan Urban: Ibadan North, Ibadan North-East, Ibadan North West, Ibadan South-East, and Ibadan South West while the following six (6) LGAs are classified as Ibadan Semi-Urban: Akinyele, Egbeda, Ido, Lagelu, Ona Ara and Oluyole (NPC, 2006). The city of ‘Ibadan’ is the capital city of Oyo State, in southwest geo-political zone of Nigeria. It is located at about 110 KM

(approximately 70 Miles) northeast of Lagos. The population as at 2006 census stood at above two million (2,338,659), with density of 2,140/sq mi (828/km^2) the metro density is 600/sq mi (250/km^2) (NPC, 2006). Ibadan is a major transit point between the coast and hinterland of Nigeria. It is also a commercial centre for southwest Nigeria. It is a host to a number of learning Institutions and Research Institutes:The Premier University, University of Ibadan, The Polytechnic, Ibadan, Lead City University, Ibadan, International Instituteof Tropical Agriculture,Cocoa Research Institute of Nigeria, Nigerian Institute of Horticultural Research, Nigerian Institute of Social and Economic Research etc.This study took place in four Local Government Areas (LGAs) to represent urban LGAs (Ibadan North and Ibadan North West) and semi-urban LGAs, (Ido and Akinyele) in Ibadan, Oyo State, Nigeria. The choice of Ibadan and these four LGAs was done based on purposive sampling procedure (Gravetter and Forzano, 2009; Korb, 2013).

3.3 Population of Study

The population of the study were in - school adolescents in public senior secondary schools in Ibadan metropolis. The main study was conducted with participants drawn from the population of the study which are in- school adolescents in Ibadan. This population was surveyed because they were more likely to be more vulnerable and lack access to psychological intervention. Also there is a higher likelihood for them to be living with care givers rather than their parents due to economic status.

3.4 Sample Size Calculation

Minimum sample size was calculated as 829, which was increased to 1,060 to accommodate the possibility of error that could occur when the scale is being administered. For this study, data were collected from, 1,060 in-school adolescents in secondary schools in Ibadan. However 1,000 data were analysed because those were the data fit for use.

This sample size was estimated based on the ability to control for any discrepancy that can occur, between a sample and its population, when there is decrease in relation of the population to the square root of the sample size (Gravetter and Forzano, 2009).

Sample Size Determination

The study focuses on a finite target population, i.e. students of selected schools, with well-known overall population size. Therefore, the appropriate formula by Kejcie and Morgan (1970) was used and then adjusted to determine the study sample size as required. Thus, **sample size**:

$$S = \frac{X^2NP(1-P)}{d^2(N-1)+X^2P(1-P)}$$

Where:

X = Confidence level 95% at 1.96 Z value

N = Population size which in this case is 41662

P = Population proportion for maximum sample which is 50% (expressed as decimal: 0.5).

d = Degree of accuracy (confidence interval) or margin of error is 5%, expressed as 0.05.

Therefore:

$$S = \frac{(1.96)^2 \times 41662 \times 0.5 \times (1-0.5)}{0.05^2 \times (41662-1)+(1.96)^2 \times 0.5 \times (1-0.5)}$$

$$= \frac{3.8416 \times 41662 \times 0.5 \times 0.5)}{0.0025 \times 41661+3.8416 \times 0.5 \times 0.5)}$$

$$= \frac{40012.1848}{104.1525+0.9604}$$

$$= \frac{40012.1848}{105.1129} = 591.7386613$$

Then, determine adjusted sample (nf) for 1% non-response (NR) as follows:

n

$$nf = n + \frac{}{1-NR}$$

Where:

n = 380.6591275

NR = 15% = 0.15

nf = Adjusted sample

$$nf = 380.6591275 + \frac{380.6591275}{1 - 15\% \ (0.15)}$$

$$= 380.6591275 + \frac{380.6591275}{0.85}$$

= 380.6591275 + 447.8343676 = 828.4934951

n = **<u>829</u>** (overall participants)

3.5 Sampling Techniques

Combination of stratified random sampling and multistage sampling techniques were used for this study. Stratified random sampling is a sampling procedure where the researcher first divides the population into groups based on a relevant characteristic and then selects participants within those groups (Gravetter and Forzano, 2009). Multistage sampling is a technique that consists of sampling at multiple stages (Singleton and Straits, 2010). In -school Adolescents are the unit of analysis. The researcher first used the standard classification of local government areas in Ibadan to select the four local government areas from the two strata, which are, urban LGAs (Ibadan North and Ibadan North West)and semi-urban LGAs, (Ido and Akinyele). Two local government areas from each groups were randomly selected using the hat and draw method, the multistage sampling was then

incorporated at this stage. In the second stage, ten senior secondary schools within each local government area were randomly selected, also using the hat and draw method, the list of schools was obtained and put into the hat and ten schools were drawn. In the final stage, the number of students present during the study in senior secondary school classes were used to select students randomly for this study. For the urban LGAs,434 students were selected for Ibadan North, 135 students were selected from Ibadan North West; for the semi-urban LGAs, 173 students were selected for Ido and 258 students were selected for Akinyele. The choice of these sampling methods is to ensure representation of the population and eliminate any possibility of sampling bias.

Inclusion Criteria:

i.. Every participant must be personally willing to participate in the study, and give consent; either verbal or sign the participant's consent form. (APA, 2010; FMH, 2007).

ii. Participants must be in any of the Senior Secondary School classes, that is Senior Secondary School Class 1 (SS1), Senior Secondary School Class 2 (SS2) or Senior Secondary School Class 3 (SS3).(SS1, SS2 or SS3).

iii.. Must have the consent of the authority of the secondary school or the Ministry of Education.

Exclusion Criteria:

I. Any adolescent that did not fulfill any of the above conditions listed above were not eligible to participate in the research.

3.6. Participants

The participants' mean age was 14±1.52; 44.3% were males and 55.7%. About 15.0% of the respondents were in Senior Secondary School Class 1, 39.3% were in Senior Secondary School Class 2, and 45.7 % were in Senior Secondary School Class 3, 62.6% were below seven in family, 37.4 % were seven or more in family; 67.3% were from monogamous families while 32.7% were from polygamous families, 69.7% were low birth order, while 30,3% were higher birth order. In the pilot study depression was reported by 21.2% while

38.3% reported suicidal ideation, the main study main for depression 12±1; while the mean for suicidal ideation was 23±1.

3.7 Pilot Study

A pilot study was carried out before the main study. It was done by identifying location of schools where the researcher conducted this study; 60 participants participated in the pilot study. The pilot study helped in validating the scales among the population of the study and in assessing the adequacy and the ease of administration of the scales that were used for measuring the variables. Also it highlighted patterns of response to instruments. The observation of the pilot study guided the researcher to make necessary amendment(s) in the design, sampling procedure and other areas of the study.

3.8.1. Ethical Consideration

This study obtained ethical approval (Ref Number AD13/479/922) from the Oyo State Research Ethical Review Committee, Ministry of Health, Secretariat, Ibadan, Oyo State, Nigeria. A protocol was developed, and a written clearance was obtained from the Head of Department of Psychology, University of Ibadan (FMH, 2007). This study also obtained permission (Ref: Number EDU215/Vol.11/185) from Oyo State Ministry of Education, Secretariat, Ibadan, Oyo State, Nigeria to conduct the research in secondary schools in Ibadan and from the Local Inspector of Education (L.I.E.) in the four local government areas.

3.8.2. Bioethical Research Standards Considered

This study adhered to the three fundamental ethical principles for using human participants (APA, 2010).

That is:

1. Respect for Persons: Protecting the autonomy of all people and treating them with courtesy and respect and allowing for informed consent.
2. Beneficence: this maximizes benefits for research project and minimizes risks to the research subjects
3. Justice: the fair distribution of costs and benefits to research participants equally.

3.9 Research Instruments and Measure

Participants completed a survey questionnaire. It contained three sections A, B, and C; Section A covered Socio-demographic variables such as age, gender; class in school, Section B assessed Depression using subscale of Trauma Symptom Checklist (TSC) 40 (TSC-40), Section C measured Positive and Negative Suicide Ideation Inventory (PANSI).

Measures: Dependent Variables (Symptoms of psychological disorders)

3.9.1. Depression subscale of Trauma Symptom Check-list 40 (TSC-40)

It contained 9-item scale measured on 4-point scale ranging from 0= Never; 3= often. Participants are to indicate how often they have experienced each of the items over aperiod of time. i.e. the last two months. Sample items include: "Insomnia (trouble getting to sleep) 0 1 2 3" and "Uncontrollable crying 0 1 2 3". This scale is one of the subscales on Trauma Symptom Checklist (TSC) 40 (Brier and Runtz, 1988, Briere, 1996, Elliot and Briere, 1992, Briere and Elliott, 2003, Briere, Agee and Dietrich, 2016). The 9 items are items 2,3,9,15,19,20,26,33,37 on the TSC-40. The psychometric measure of subscale is alphas ranging from .66 to .77 (Briere, 1996). For this study the Cronbach's alpha was .67.The highest possible score is 27 with a cutoff point of 14. Responses are scored from 0-3 with higher scores reflection high level of depression.

3.9.2. Positive and Negative Suicide Ideation Inventory (PANSI)

The PANSI is a 14-item measure designed to assess suicidal ideation in adolescents and college-age students in terms of the frequency of negative risk and protective factors associated with suicide-related behaviour Osman, Gitierrez, Kopper, Barrior and Chiros (1998). PANSI is comprised of two major subscales: Negative Suicide Ideation (PANSI-Negative; item 1, 3, 4, 5, 7, 9, 10, 11) and Positive Suicide Ideation (PANSI-Positive; item 2, 6, 8, 12, 13, 14). It is a 5-point scale ranging from 1= never; 5= Most of the time participants are to circle the number that comes closest to how they feel most of the time. Sample of items from PANSI-Negative include: "Considered killing yourself" and "Thought problems were overwhelming" Sample of items from PANSI-Positive include: "felt hopeless" and "felt life worth living". Reliability of PANSI has shown internal

consistency with alpha of .89 for the Positive subscale and .96 for the Negative subscale. The 2-week test-retest reliability coefficient of .79 for Negative and .69 for Positive has been recorded (Fischer and Corcoran, 2007, Aloba, Adefemi and Aloba, 2018) For this study the Cronbach's alpha was .77. Negative Suicide Ideation has scores ranging from 0-40 while Positive Suicide Ideation Subscale ranges from 0-30. Responses are scored from 0-3 with higher scores on each subscale reflecting stronger negative or positive thoughts.

3.10. Procedures for Data Collection

The researcher obtained introduction letter from the Department of Psychology, Faculty of the Social Sciences, University of Ibadan, Ibadan, which was used to obtain permission from the Ministry of Health and Ministry of Education. The permission from the two ministries were used to gain access and obtain permission from Local Inspectors of Education for the secondary schools in each of the local government areas. The data were collected for this study through administration of scales to the population of interest. The study was conducted in two phases: the pilot study and the main study. The pilot study was used to assess the scales and to determine the clarity and the flow of items and the time it took to complete the scales.

The main study was conducted with the corrected scales from the pilot study. The researcher used the services of two different research and analysis outfits which deployed their staff to assist the researcher for the field work. Prior to the distribution of the questionnaires, the heads of administration of selected schools in the study were contacted and the purpose of the study was explained to them. This was done to enlist their support and assistance inobtaining parental or Guardian consents/ascentfor their teenagers to participate in this study, and in preparing the schools for administration of the scales. Student that were selected were taken to a classroom, the researcher gave brief verbal explanation on how to fill the questionnaire, they were encouraged seek clarification at any point of time during the administration of the questionnaire which took between 30-40 minutes to complete.

3.11 Statistical Analysis

All eight hypotheses formulated for this research work were analysed in line with data that were collected. Research Hypotheses were tested with Zero-order correlation to show relationship between familial factors, depression and suicide ideation. Hypothesis one, two, seven and eight were analysed with t-test for independence samples, while hypothesis three, four, five and six were tested with one-way Analysis of Variance (ANOVA). All the analyses were done using a computer based analysis, Statistical Package for the Social Sciences version IMB Statistics 20 (SPSS 20), at $p \leq 0.05$level of significance.

CHAPTER FOUR

4.0 RESULTS

This chapter deals with data analysis and interpretation of the findings. Specifically the study provided answers to eight research hypotheses. The statistical tests used include Zero-order correlation, One-way Analysis of variance (ANOVA), t-test for independence samples.

Table 4.1: Showing levels of depression

Depression	Frequency	%
Not Depressed	795	79.6
Depressed	204	20.4
Total	999	100

Table 4.2: Showing levels of suicidal behaviour

Suicide	**Frequency**	**%**
Suicide Attempters	148	14.8
Severe At Risk	24	2.4
Non Suicidal	827	82.8
Total	999	100

Table 4.3: Zero-Order Correlation Matrix Showing the Relationship among Variables of Study

		Mean	S.D	1	2	3	4	5	6	7	8	9	10	11
1.	Depression	7.36	5.59	1	.422**	-.005	-.021	.117**	.021	-.009	.049	.132**	.041	.012
2.	Suicide	30.87	10.17		1	-.009	-.026	.133**	.002	-.050	-.011	.097**	.050	.039
3.	Age	16.08	1.65			1	-.038	.049	.050	.009	.016	.042	.013	.018
4.	Gender	1.56	.50				1	-.041	-.062*	-.005	-.021	.077*	-.037	-.021
5.	Family Size	6.82	3.65					1	.624**	.058	-.006	.255**	.361**	.298**
6.	Position in the Family	3.23	2.86						1	.096**	.010	.149**	.345**	.342**
7.	Father Occupation	9.73	9.69							1	.228**	.013	.019	.066*
8.	Mother Occupation	6.44	6.92								1	.017	-.018	.011
9.	Family Type	1.33	.47									1	.419**	.276**
10.	Number of Wives	1.72	1.62										1	.773**
11.	Mummy Position	1.34	1.12											1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.3 reveal that there was significant positive relationship between Suicide ideation (r = .42, p<.01), family size(r = .12, p<.01), family type (r = .13, p<.01) and depression the result indicates that increase in suicide, family size and family type significantly relate to increase in depression. There was no significant positive relationship between family size (r = -.04, p>.05) and depression. Also there was a significant positive relationship between family size (r = .13, p<.01), family type (r = .09, p<.01) and suicidal ideation the result indicates that increase in family size and family type significantly relate to increase in suicide.

Hypothesis I

Hypothesis one stated that in-school adolescents from urban LGAs will significantly report more depression than in-school adolescents in Semi-urban LGAs. This hypothesis was analysed using the t-test for independence samples and the result presented in Table 4.4.

Table 4.4: Summary of t-test table Showing Difference Between In-school Adolescents' depression based on Urban and Semi-urban LGAs

Variable	Location	N	Mean	S.D	df	t	P
depression	Urban	582	8.46	5.82			
	Semi-urban	447	5.82	5.22	996	9.21	<0.01

The result from table above reveals that in-school adolescents from rural (M=5.82, S.D= 5.22) significantly reported lower scores on depression compare to in-school adolescents from urban (M=8.46, S.D =5.82). This result indicates that Urban in-school adolescents reported more depression ($t_{(996)} = 9.21$) than their rural counterpart. This implies that location significantly influenced depression among in-school adolescents. The hypothesis is thus accepted.

Hypothesis II

Hypothesis two stated that in-school adolescents from urban LGAs will significantly report more suicidal ideation than in-school adolescents in Semi-urban LGAs. This hypothesis was analysed using the t-test for independence samples and the result presented in Table 4.5.

4.5: Summary of t-test Table Showing Difference between In-school Adolescents' Suicidal Ideation based on Urban and Semi-urban

Variable	Location	N	Mean	S.D	df	t	P
Suicidal ideation	Urban	582	32.42	9.43			
	Semi-urban	447	30.23	10.53	996	-3.06	<0.01

The result from table above reveals that in-school adolescents from rural (M=32.42, S.D= 9.43) significantly reported lower scores on suicidal ideation compare to in-school adolescents from urban (M=30.23, S.D =10.53. This result indicates that Urban in-school adolescents reported more suicidal ideation ($t_{(996)} = 4.38$) than their rural counterpart. This implies that location significantly influence suicidal ideation among in-school adolescents. The hypothesis is thus accepted.

Hypothesis III

The third hypothesis stated family size will significantly influence depression among in-school adolescents was analyzed using One-way ANOVA and results are presented in Table 4.6-7.

Table 4.6: Summary of One-way ANOVA Showing the Differences of Depression Levels Based on Family Size.

Dependent variable		Sum of Squares	df	Mean Square	F	Sig.
Depression	Between Groups	596.197	3	198.732	6.469	.000
	Within Groups	30566.628	995	30.720		
	Total	31162.825	998			

The result in table 4.6 shows that Family size have significant variation in level of depression based on family size ($F_{(3, 995)} = 6.39$). Further analysis and post hoc test is presented in Table 4.7.

4.7: Descriptive statistics showing mean difference in suicidal ideation based on family size

				LSD POST HOC ANALYSIS			
		Mean	S.D	1	2	3	4
2- 4	250	29.23	10.200	-	-1.22	-3.12*	-5.03*
5 – 7	484	30.44	10.290		-	-1.90	-3.81*
8 – 10	147	32.35	9.527			-	-1.91
11 and above	118	34.25	9.480				-
Total	999	30.87	10.171				

*. The mean difference is significant at the 0.05 level.

Descriptive analysis and pot hoc analysis revealed that those in-school adolescents from family with 10 or more members significantly reported higher depression than in-school adolescents from family with 4-6 and 7- 9 members. those in-school adolescents from family with 10 or more members significantly reported higher level of negative suicidal ideation than in-school adolescents from family with 4-6 and 7- 9 members. The hypothesis was rejected and the alternate hypothesis supported.

Hypothesis IV

The fourth hypothesis stated family size will significantly influence suicidal ideation and among in-school adolescents was analysed using One-way ANOVA and results are presented in Table 4.8-9.

Table 4.8: Summary of One-way ANOVA Showing the Differences of Suicidal Ideation Levels Based on Family Size.

Dependent variable		Sum of Squares	df	Mean Square	F	Sig.
Suicide	Between Groups	2433.906	3	811.302	8.007	.000
	Within Groups	100817.177	995	101.324		
	Total	103251.083	998			

The result in table 4.3 shows that Family size have significantly influenced on level suicidal ideation among in-school adolescents ($F_{(3, 995)} = 11.04$). Further analysis and post hoc test is presented in Table. 4.9.

4.9: Descriptive statistics showing mean difference in suicidal ideation based on family size

				LSD POST HOC ANALYSIS			
	N	Mean	S.D	1	2	3	4
2- 4	250	6.56	5.421	-	-.541	-2.18*	-1.82*
5 – 7	484	7.11	5.730		-	-1.64*	-1.28
8 – 10	147	8.75	5.112			-	.367
11 AND ABOVE	118	8.38	5.530				-
Total	999	7.36	5.588				

*. The mean difference is significant at the 0.05 level.

Descriptive analysis and pot hoc analysis revealed that in-school adolescents from family with 10 or more members significantly reported higher level of negative suicidal ideation than in-school adolescents from family with 4-6 and 7- 9 members. The hypothesis was supported.

Hypothesis V

The third hypothesis stated birth order will significantly influence depression levels among in-school adolescents was analyzed using One-way ANOVA and results are presented in Table 4.10-11:

Table 4.10: Summary of One-way ANOVA Showing the Differences of Suicidal Ideation and Depression Levels Based on Birth Order.

Dependent variable		Sum of Squares	df	Mean Square	F	Sig.
Depression	Between Groups	960.677	9	106.742	3.495	.000
	Within Groups	30202.148	989	30.538		
	Total	31162.825	998			

The result in table 4.5 shows that higher birth order significantly influenced level of depression ($F_{(4, 994)} = 3.49$). Further analysis and post hoc test is presented in Table. 4.11.

4.11: Descriptive Statistics Showing Mean Difference in depression Based on Birth Order

			LSD POST HOC ANALYSIS																	
	Mean	**S.D**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
1	31.41	10.604																			
2	30.62	10.306																			
3	30.05	9.437																			
4	29.5	10.924																			
5	31.96	8.517																			
6	30.62	8.814																			
7	33.89	8.464																			
8	36.54	7.29																			
9	31.33	11.85																			
10	29.0	10.66																			
12	34.25	5.123																			
13	29.67	14.468																			
14	38.5	5.447																			
15	46.0	16.971																			
16	24.33	21.079																			
17	31.0	7.81																			
18	34.0	13.229																			
19	9.0	12.728																			
20	21.33	4.933																			
Total	**7.36**	**5.588**																			

Hypothesis VI

The sixth hypothesis stated birth order will significantly influence suicidal ideation and depression levels among in-school adolescents was analyzed using One-way ANOVA and results are presented in Table 4.12-13:

Table 4.12: Summary of One-way ANOVA Showing the Differences of Suicidal Ideation and Depression Levels Based on Birth Order.

Dependent variable		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Suicide Ideation	Between Groups	2914.995	9	323.888	3.193	.001
	Within Groups	100336.088	989	101.452		
	Total	103251.083	998			

The result in table 4.12 shows that higher birth order significantly influenced level of suicidal ideation ($F_{(4, 994)} = 3.19$).Further analysis and post hoc test is presented in Table. 4.13.

4.13: Descriptive Statistics Showing Mean Difference in Suicidal Ideation Based on Birth Order

	Mean	S.D	1	2	3	4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20
1	6.9	5.588																			
2	7.53	5.483																			
3	7.51	5.415																			
4	7.05	6.081																			
5	8.84	5.954																			
6	6.58	4.911																			
7	9.56	5.17																			
8	6.77	5.666																			
9	7.42	5.744																			
10	6.0	6.467																			
12	9.0	6.325																			
13	12.67	1.528																			
14	9.75	6.652																			
15	6.0	8.485																			
16	9.0	1.732																			
17	7.67	7.371																			
18	8.33	5.859																			
19	8.5	10.607																			
20	6.33	5.132																			
Total	**7.36**	**5.588**																			

Hypothesis VII

Hypothesis seven stated that in-school adolescents from monogamous family will significantly report more depression than in-school adolescents from polygamous family. This hypothesis was analyzed using the t-test for independence samples and the result presented in Table 4.14.

Table 4.14: Summary of t-test Showing Difference Between In-school Adolescents' Family Type on Depression

	Family type	N	Mean	S.D	df	T	P
Depression	Monogamous family	**672**	**6.82**	**5.408**	996	4.03	<0.01
	Polygamous family	**327**	**8.47**	**5.794**			

The result from Table 4.14 reveals that in-school adolescents from polygamous family (M=32.32, S.D= 9.34) significantly reported higher scores on suicidal ideation than in-

school adolescents from monogamous family (M=30.16, S.D =10.26). This result indicates that in-school adolescents from polygamous families were significantly higher on depression ($t_{(996)} = 4.40$) than in-school adolescents from monogamous families.. This implies that family type significantly influence depression among in-school adolescents. The hypothesis is thus accepted.

Hypothesis VIII

Hypothesis eight stated that in-school adolescents from monogamous family will significantly report more suicidal ideation than in-school adolescents from polygamous family. This hypothesis was analyzed using the t-test for independence samples and the result presented in Table 4.15.

Table 4.15: Summary of t-test Showing Difference between In-school Adolescents' Family Type and Suicidal Ideation

	Family type	N	Mean	S.D	df	t	P
Suicidal Ideation	Monogamous family	672	30.16	10.265	996	4.40	<0.01
	Polygamous family	327	32.32	9.834			

The result from Table 4.15 reveals that in-school adolescents from polygamous family (M=32.32, S.D= 9.34) significantly reported higher scores on suicidal ideation than in-school adolescents from monogamous family (M=30.16, S.D =10.26). This result indicates that in-school adolescents from polygamous families were significantly higher on negative suicidal ideation ($t_{(996)} = 4.03$) than in-school adolescents from monogamous families. This implies that family type significantly influence suicidal ideation among in-school adolescents. The hypothesis is thus accepted.

CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion:

This study sought to document the prevalence and causes of depression and suicidal ideation among adolescents, and particularly family-induced ones. This study, therefore, examined the relative contributions of certain socio-demographic variables such as age, gender, class in senior secondary school and family variables such as family size, family type, and birth order as factors associated with depression and suicidal ideation among in-school adolescents in Ibadan, Nigeria. This study used cross-sectional survey research design. The independent variables were socio-demographic variables and family variables as stated above, the dependent variable were depression and suicidal Ideation. Data were collected with structured, standardized questionnaire. Eight hypotheses were stated and tested. Based on the findings, the results were discussed in relation to the existing relevant studies and in terms of the implications for practice and further researches.

In line with previous studies, (Grinde and Tambs, 2016; Xu, Zhang, Wang, Yuan, Tang, Yin, Zhang,... Tian, 2015;Al-Sharfi, Pfeffer & Miller, 2016; Kirkcaldy, Vejlgaard and Siefen, 2008; Kinyanda, Kizza, Abbo, Ndyanabangi and Levin, 2013, Odejide, et al. 1986, Omigbodun, et al. 2008; Nwosu and Odesanmi, 2001). Large family size, polygamous and higher birth order influenced depression and suicidal ideation among sampled in-school adolescents in Ibadan, Nigeria.This was also replicated in this present study among in-school adolescents in the four local government areas in Ibadan, Oyo State, Nigeria, where this present study was conducted. Though much of the research on depression and suicidal ideation were conducted among clinical samples, the outcome of the present study shows that it exists among in-school adolescents in sub-Saharan African with no-clinical population.

The significant findings of this present study were that:

(1) Adolescents in urban LGAs reported higher depression than those in semi-urban LGAs.

(2) Adolescents in urban LGAs reported higher suicidal ideation than those in semi-urban LGAs.

(3)There was significant variation of depression on family size, those adolescents from family with ten or more members significantly reported higher depression than adolescents from family with four to six and seven to nine members.

(4) Family size also significantly influenced suicidal ideation, those adolescents from family with seven or more members significantly reported higher level of negative suicidal ideation than adolescents from family with below seven and seven and above members.

(5)Family size also significantly influenced suicidal ideation, those adolescents from family with seven or more members significantly reported higher level of negative suicidal ideation than adolescents from family with below seven and seven and above members.

(6)Higher birth order significantly influenced level of depression, adolescents within sixteen to twenty birth order were more depressed than first born, second to fifth, sixth to ten and eleventh to fifteenth birth order.

(7)Higher birth order significantly influenced level of negative suicidal ideation, adolescents within sixteen to twenty birth order were more depressed than first born, second to fifth, sixth to ten and eleventh to fifteenth birth order.

(8)Adolescents from polygnous families were significantly higher on depression than adolescents from monogamous families.

(9)Adolescents from polygnous families were significantly higher on negative suicidal ideation than adolescents from monogamous families.

The Zero-order correlation revealed that there was significant positive relationship between Suicide, family size, family type and depression the result indicates that increase in suicide, family size and family type significantly relate to increase in depression, this is in accordance with the findings (Omigbodun, et al. 2008; Nwosu and Odesanmi, 2001) .There was no significant positive relationship between family size and depression. Also there was a significant positive relationship between family size, family type and suicidal ideation the result indicates that increase in family size and family type significantly relate to increase in suicide ideation. This is in accordance with the findings, this is in accordance with the findings

Hypothesis one stated that in-school adolescents from urban LGAs will significantly report more depression than in-school adolescents semi-urban LGAs. This hypothesis was analysed using the t-test for independent samples and the result shows that in-school adolescents in urban LGAs reported higher depression than those in Semi-urban LGAs. This finding is in accordance with Several risk factors for suicidal ideation in urban area which include having depression symptoms (Xu, Zhang, Wang, Yuan, Tang, Yin, Zhang,... Tian, 2015).

Hypothesis two stated that in-school adolescents from urban LGAs will significantly report more suicidal ideation than in-school adolescents semi-urban LGAs. This hypothesis was analysed using the t-test for independent samples and the result shows that in-school adolescents in urban LGAs reported higher suicidal ideation than those in Semi-urban LGAs. This finding is in accordance with Several risk factors for suicidal ideation in urban area which include having depression symptoms (Xu, Zhang, Wang, Yuan, Tang, Yin, Zhang,... Tian, 2015).

The third hypothesis stated that family size will significantly influenced depression levels among in-school adolescents was analysed using One-way ANOVA and results show that family size significantly influenced depression, those in-school adolescents from family with seven or more members significantly reported higher level of negative suicidal ideation than in-school adolescents from family with below seven and seven and above members. Grinde and Tambs (2016) stated that a large household is associated with fewer mental problems in children/adolescents. There was also significant variation of depression on family size, those adolescents from family with 10 or more members significantly reported higher depression than adolescents from family with 4-6 and 7- 9 members. Grinde and Tambs (2016), large household is associated with fewer mental problems in children/adolescents.

The fourth hypothesis stated that family size will significantly influenced suicidal ideation levels among in-school adolescents was analysed using One-way ANOVA and results show that family size significantly influenced suicidal ideation, those in-school adolescents from

family with seven or more members significantly reported higher level of negative suicidal ideation than in-school adolescents from family with below seven and seven and above members. Grinde and Tambs (2016) stated that a large household is associated with fewer mental problems in children/adolescents. There was also significant variation of depression on family size, those adolescents from family with 10 or more members significantly reported higher depression than adolescents from family with 4-6 and 7- 9 members. Grinde and Tambs (2016), large household is associated with fewer mental problems in children/adolescents.

The fifth hypothesis stated that, birth order will significantly influence suicidal ideation and depression levels among in-school adolescents was analysed using One-way ANOVA and results indicated that higher birth order significantly influenced level of depression, and negative suicidal ideation. In-school adolescents within 16^{th} - 20^{th} birth order were more depressed than 1st born, 2^{nd} - 5^{th}, 6^{th} - 10^{th}, and 11^{th} - 15^{th}. Kirkcaldy, Vejlgaard and Siefen (2008) found thatbirth order was associated with both suicidal and self-injurious behaviour, middle children being most likely to exhibit such behaviour.

The sixth hypothesis stated that, birth order will significantly influence depression levels among in-school adolescents was analysed using One-way ANOVA and results indicated that higher birth order significantly influenced level of depression, and negative suicidal ideation. In-school adolescents within 16^{th} - 20^{th} birth order were more depressed than 1st born, 2^{nd} - 5^{th}, 6^{th} - 10^{th}, and 11^{th} - 15^{th}. Kirkcaldy, Vejlgaard and Siefen (2008) found that birth order was associated with both suicidal and self-injurious behaviour, middle children being most likely to exhibit such behaviour.

Hypothesis seventh stated that in-school adolescents from monogamous family will significantly report more depression than in-school adolescents from polygamous family. This hypothesis was analysed using the t-test for independent sample and the result presented indicated that in-school adolescents from polygamous families were significantly higher on depression than in-school adolescents from monogamous families.Al-Sharfi,

Pfeffer & Miller (2016) found more mental health problems for adolescents from polygynous than monogamous families.

Hypothesis eight stated that in-school adolescents from monogamous family will significantly report more suicidal ideation than in-school adolescents from polygamous family. This hypothesis was analysed using the t-test for independent sample and the result presented indicated that in-school adolescents from polygamous families were significantly higher negative suicidal ideation than in-school adolescents from monogamous families. Al-Sharfi, Pfeffer & Miller (2016) found more mental health problems for adolescents from polygynous than monogamous families.

5.2. Conclusion

The results of the present research carried out in a non-clinical setting points to the fact that depression and suicidal ideation among in-school adolescents is a global problem since it occurs across the global regions as shown in WHO fact book (WHO, 2014). It is a public knowledge that cases of large family size, polygamous and higher birth order is associated depression and suicidal ideation among sampled in-school adolescents in Ibadan, Nigeria. Thus the frequency of depression and suicidal ideation is a great health concern and therefore calls for elaborate research and intervention. Unlike previous researches that focused on clinical population, it has become crucial to place more emphasis on non-clinical populations especially in-school adolescents.

The current state of anomie experienced in Nigeria, has led to the increase in the incident and prevalence rate of depression and suicidal among in school adolescents, with the economic state of the nation that is classified as depression has manifested in loss of household or family income that impacted either directly or indirectly on the wellbeing of adolescents. Thus it can be stated that the higher the economy anomie the likelihood that the rate and incident of depression and suicidal ideation will also increase in a community. Familial factors might be a cause of distressed experiences that makes the in-school adolescents to have depression and suicidal ideation as a maladaptive ways of handling the experience. Despite the known consequences of large family size, polygamous and higher birth order associated risk factors with depression and suicidal ideation among in-school

adolescents, the consideration it has enjoyed comes largely from researches that focus on the clinical population. Mental health risk factors associated with familial variables among in-school adolescents is a concern for further studies, especially as it affects the adolescents who are vulnerable to dysfunctional family settings and socio-demographic variables who are likely to be threatened not to report the case or challenges faced. In view of this, it can be concluded as investigated in this present study, that depression and suicidal ideation is highly prevalent as a result of large family size, polygamous and higher birth order among sampled in-school adolescents in the four local government areas in Ibadan, Oyo State, Nigeria.

5.3. Implications and Recommendations

The findings of this study have demonstrated that large family size, polygamous and higher birth order is associated with depression and suicidal ideation among sampled in-school adolescents in Ibadan, Oyo State, Nigeria, a community population that might not be seen as requiring immediate intervention. Mental health workers should therefore consider policy and strategy to facilitate assessment among in -school adolescents either at the point of enrolment into secondary schools or at the senior class level and primary health care levels. This is with the view of nipping the disorders at the earliest possible time. Another significant implication from this present study is that, it could provide justification for some of the psychological challenges that confront the in-school adolescents in the sample population. It is possible that a number of adolescents who are exhibiting other psychological distresses might be having challenges with other familiar factors and socio-demographic factors which are not reported.

5.4 Limitation of the Study

The use of a community-based sample may have helped to avoid the bias inherent in clinical based research since all of the information gathered was based on retrospective reporting, a potential problem for lifetime diagnoses and for the disclosure of information regarding familial factors. However, a review by Rutter and Maughan (1997) suggests that retrospective self-reports regarding some variables are more likely to be biased towards under reporting than exaggeration. These potential limitations, notwithstanding, the current

study has contributed to research in depression and suicidal ideation among non-clinical populations by using in- school adolescents for the study. It has therefore contributed to the understanding of the dependent variables. Other studies are required to replicate these findings and work out intervention modalities. The use of longitudinal studies in further studies will also help to unravel the causal directions between these factors. Further research in this area can also explore or consider intervening variables and or the protective factors.

5.5 Suggestion for further Study

Further studies could examine the nature, severity, duration and distress arising from familial and socio-demographic variables among in- school adolescents. Longitudinal studies should also be used to determine the lifelong distress of large family size, polygamous and higher birth order among in-school adolescents. Finally the study could also be extended to out of –school adolescents or adolescents on the street. Based on the outcomes of this study, it is suggested that repetitive studies are required in order to generalize the results of this study, and a programme to decrease adolescent suicidal ideation needs to be developed, and studies to examine the effect of the program need to be conducted as well.

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APPENDIX A

University of Ibadan

Department of Psychology, Faculty of the Social Sciences

Dear respondent,

Parental, Guardian or participant Informed Consent form

Research approval number: Ref Number AD13/479/922

This approval will elapse on: not applicable

1) This study obtained ethical approval (Ref Number AD13/479/922) from the Oyo State Research Ethical Review Committee, Ministry of Health, Secretariat, Ibadan, Oyo State, Nigeria.

2) This study also obtained permission (Ref: Number EDU215/Vol.11/185) from Oyo State Ministry of Education, Secretariat, Ibadan, Oyo State, Nigeria to conduct the research in secondary schools in Ibadan and from the Local Inspector of Education (L.I.E.) in the four local government areas.

Parental/Participants Consent Form

Dear Parent/Guardian or Participant:

This informed consent form is for parents or guardian of adolescents who are being invited to participate in a research study titled **"FAMILIAL FACTORS ASSOCIATED WITH DEPRESSION AND SUICIDAL IDEATION AMONG IN-SCHOOL ADOLESCENTS IN IBADAN, NIGERIA"** This informed consent is broadly divided into two parts. The first part seeks to share information with you about the research while the second part seeks to certify your consent to participate in the research by appending your signature (if you agree to participate).

PART 1: Information on the research

This study is being conducted by Abayomi Sunday DARAMOLA, a postgraduate student from the Department of Psychology, Faculty of the Social Sciences, University of Ibadan, Ibadan, Oyo State, Nigeria. The supervisor of this dissertation is Dr. B.O Olley of the Department of Psychology, Faculty of the Social Sciences, University of Ibadan, Ibadan, Oyo State, Nigeria. We are conducting this research with the objective of finding out **FAMILIAL FACTORS ASSOCIATED WITH DEPRESSION AND SUICIDAL IDEATION AMONG IN-SCHOOL ADOLESCENTS IN IBADAN, NIGERIA.**

This research, being a partial fulfillment of requirements of obtaining an MPhil (Clinical Psychology) from the above named institution is a self –sponsored dissertation. All the expenses shall be borne by the researcher.

The information that would be collected from this research will be kept confidential. All information collected in this study will be given code numbers and no name will be recorded. This cannot be linked to you or your adolescent in anyway and your name, his or her name or any identifier will not be used in any publication or reports from this study. Information about you or your adolescent that will be collected during the research will be put away and no-one but the researchers and other officials with responsibility with this study will be able to see it. In this study, about 1,060 participants (including your adolescent) will be asked to respond to a three- section questionnaire A, B, and C. Section A covers Socio-demographic variables such as age, gender; class in school, Section B will assess Depression using subscale of Trauma Symptom Check-list 40 (TSC-40), Section C is Positive and Negative Suicide Ideation Inventory (PANSI).Your adolescent participation in this study will take 30-40 minutes.

You should also be informed that your participation and that of your adolescent in this research is voluntary. You do not have to participate in this research if you do not wish to do so and your refusal to participate will not affect you or your adolescent. The main benefit of your participation in the study is to help contribute to existing stream of knowledge on Familial Factors Associated with Depression and Suicidal Ideation among in-school Adolescents in Ibadan, Nigeria. There are

no risks associated with participating in the study. Also, there is no monetary cost to be incurred as a participant in this research except the time to be used to complete the research questionnaire. After the research, it is anticipated that the findings of this study will aid understanding Familial Factors Associated with Depression and Suicidal Ideation among in-school Adolescents in Ibadan, Nigeria. Therefore, this study will bring a boost to the quality of life of adolescents experiencing depression and suicidal ideation.

If you have any question(s) to ask about the study, you may ask now or later. If you wish to ask questions later, you may contact any of the following;

1. Research Supervisor
Name: Dr. B.O Olley
Address: Department of Psychology, UI
e-mail: olley28@yahoo.com

2. Student researcher
Name: Daramola, Abayomi S.
Address: Department of Psychology, UI
e-mail: updaramola@yahoo.com
07034516060

PART II: Certificate of Consent

For literate parent/ guardian of participants

I have read the foregoing information and I have had the opportunity to ask questions about it and all questions that I have asked have been answered to my satisfaction. I hereby certify my consent to voluntarily allow my adolescent ……(name of adolescent) to participate in this research.

Adolescent's Date of Birth……..

Name of Parent/Guardian _____

Signature of Parent/Guardian _____

Date _____

For illiterate parent/guardian of participants (to be signed by a witness)

I have witnessed the accurate reading of the consent form to the potential participant's parent/guardian, and the individual had the opportunity to ask questions. I confirm that the individual has given consent to allow his/her adolescent ……(name of adolescent) to participate in this research voluntarily.

Adolescent's Date of Birth……..

Name of Witness _____

Signature of Witness _____

Date _____

Thumb print of Parent/Guardian

Statement by Researcher

I confirm that the participant (Parent/guardian and adolescent) were given an opportunity to ask questions about the study, and all the questions asked by the participants have been answered satisfactorily and to the best of my ability. I confirm that the individual has not been coerced into giving consent to participate but the consent has been given freely and voluntarily. A copy of this Informed Consent Form has been given to the participants' parents or guardian.

Name of Researcher _____

Signature of Researcher _____

Date _____

Research Ethical Review Committee

This research has been approved by the Oyo State Research Ethical Review Committee, Ministry of Health Secretariat, Ibadan, Oyo State, Nigeria,

APPENDIX B

Dear respondent,

Thank you in advance for choosing to participate in this research. This research aims at measuring behavioural characteristics and feelings about life. To guarantee the UTMOST CONFIDENTIALITY of your responses, you **DON'T** have to enter your name, address, or any other identification information. Please respond truthfully, and your responses shall be used for research purposes exclusively.

Section A

Write your Age:

_____

Tick Gender: Male ☐ Female ☐

Tick Class: SS1 ☐ SS2 ☐ SS3 ☐

Write your family size:

_____

Write your birth order position in the family:

_____

What's your Father's Occupation?

_____

What's your Mother's Occupation?

_____

Tick Family Type: Monogamous ☐ Polygamous ☐

Section B

INSTRUCTION: Please tick your responses in the table appropriately, using the response below.

	Depression subscale of TSC-40	0	1	2	3

S/N	**(Trauma Symptoms of Checklist)** TSC-D **Items**	Never	Once a while	Some of the time	Often times
How often have you experienced each of the following in the last two months?					
1	Insomnia (trouble getting to sleep)	0	1	2	3
2	Weight loss (without dieting)	0	1	2	3
3	Low sex drive	0	1	2	3
4	Sadness	0	1	2	3
5	Waking up early in the morning and not being able to get back to sleep	0	1	2	3
6	Uncontrollable crying	0	1	2	3
7	Desire to physically hurt yourself	0	1	2	3
8	Feelings of inferiority	0	1	2	3
9	Feelings of guilt	0	1	2	3
Section C SATI **Sexual Abuse Trauma Index (SATI) a sub scale of TSC-40**					
1	Sexual problems	0	1	2	3
2	"Flashbacks" (sudden, vivid, distracting memories)	0	1	2	3
3	Nightmares	0	1	2	3
4	Fear of men/ women	0	1	2	3
5	Memory problems	0	1	2	3
6	Bad thoughts or feelings during sex	0	1	2	3
7	Feeling that things are "unreal"	0	1	2	3

	Section C					
S/N	**Items of** PANSI **Positive and Negative Suicide Ideation Inventory** **Responses:** **1=Never,** **2= A little of the time** **3= Some of the time** **4= A good part of the time** **5= Most of the time**	**1**	**2**	**3**	**4**	**5**
	In the past 2 weeks, including today, have you…					
1	Considered killing yourself					
2	Felt you were in control					
3	Felt hopeless and wondered					
4	Felt unhappy about?					
5	Thought you could not accomplish anything					
6	Felt hopeful					
7	Thought you could not find solution					
8	Felt excited					
9	Felt like a failure					
10	Thought problems were overwhelming					
11	Felt lonely					
12	Felt confident about your ability					
13	Felt life is worth living					
14	Felt confidents with plans					