

Psycho-Biological predictors of suicide behaviour among undergraduate students of University of Port Harcourt, Nigeria

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Abstract: *The study investigated the Psycho-Biological predictors of suicide behaviour among undergraduate students of University of Port Harcourt, Nigeria. Three research questions and three hypotheses guided the study. The study adopted the correlational research design, with a sample of 600 students. Multistage sampling technique was employed in drawing the sample. The instrument for collection of data for this study was a questionnaire named "Suicide Behaviour Scale (PSBS). It is divided into two sections: A and B. Section A was designed to elicit information on the respondent's demographic profile (gender). Section B further contains items on psycho-biological predictors of suicide behaviour. The face, content and construct validities of the instrument were statistically ensured. Simple regression was used to analyze data generated. Result indicated that emotion dysregulation and self-esteem are significant predictors of suicide behaviour among students in University of Port Harcourt, Rivers State, but genetic disposition is not a significant predictor of suicide behaviour. Based on the findings, it was recommended among others that tertiary institutions should establish counselling unit that is fully functional and with qualified counsellors; and lecturers and the school authorities should make it a point of duty to sensitize and encourage students to visit the counselling units from time to time in order to get guidance on how to cope with challenges of life.*

Keywords: Suicide, suicide behaviour, psycho-biological, emotion dysregulation, self-esteem and genetic predisposition

Introduction

Human transition from one stage of development to another is often chequered with uncertainties and challenges both on the part of the individual experiencing the transition and their immediate surroundings. More particularly is the transition from adolescence. This phase of life symbolizes a significant stage characteristically typified by lots of socio-psychological changes in the life of the individual going through these changes. It marks a period of various forms of transformation. For instance, it is a period of leaving home and family members, entering higher school or university, seeking for self reliance, possibly seeking for job and self sustenance, trying to become independent, getting involved in enduring relationships outside the family, and in fact generally beginning a new lifestyle altogether. Due to the uncertainties associated with this phase of life, many individuals that cluster within this population adopt different approaches in confronting their lives' challenges. While some brace up and deal with their problems effectively; and successfully transit to functional adulthood, others may lack adequate coping skills, and so engage in life threatening activities including suicidal behaviours.

Suicidal behaviour among adolescents tends to have increasingly become an essential public health concern. Suicide has been identified by The World Health Organization, WHO, (2001) as one of the three principal causes of death among adolescents and young adults, and the enormity of this problem becomes even greater when suicidal ideation and failed suicide attempts are taken into consideration. Among emerging adults in our society, especially students in tertiary institutions, suicidal behaviours have become so prevalent, and therefore call for urgent investigation. Suicidal behaviours which include suicide ideation/suicidal thoughts or suicidal attempts, have become a topical public health subject-matter. While suicide itself may be defined as deliberate self-inflicted death; Suicide attempt is a planned but unsuccessful act of trying to kill oneself. But suicidal behaviour refers to any intentional action that has impending life-threatening consequences. In the words of Hudgens (2003), Suicidal behaviours often occur in response to a situation that the person views overwhelming, such as social isolation, death of a loved one, emotional trauma, serious physical illness, aging, unemployment, or financial problems, guilt feelings or dependence on alcohol or other drugs.

A good number of Nigerian undergraduate students are faced with various kinds of unbearable economic difficulties ranging from inability to pay school fees, buying the needed textbooks for their courses of study and also take care of other personal need. These students in tertiary institutions who cluster within the population under study frequently pass through challenges such as academic pressure, financial challenges; pressure from parents and peers, etc; which make them become stressed and pessimistic; and by extension may lead to suicidal behaviours.

This study therefore attempted to explore psychobiological predictors of suicide behaviour among undergraduate students of University of Port Harcourt. These psychobiological predictors include emotion dysregulation, genetic predisposition and self esteem. It becomes imperative to investigate these variables in relation to suicidal behaviour, as it is yet to be ascertained if past studies on suicidal behaviour examined them, or sufficiently did so.

Conceptual Clarifications

Suicide

The idea of taking one's life is a complex process and not a singular event. The process also occurs within a given context and time. A crucial part of the process is the thought or the idea of committing suicide. Two main terminologies have dominated this distinct process; these are ideation and thoughts; but a somewhat consensus position is that both ideation and thoughts are semantically right and can be used as synonyms when describing the pathways to suicide attempts and suicide (Klonsky, May, & Saffer, 2016). Suicide is death from injury, poisoning, or suffocation where there is evidence (either explicit or implicit) that the injury was self-inflicted and that the decedent intended to kill him- self/herself (Amare, Woldeyhanes, Haile, and Yeneabat, 2018). It has been identified by The World Health Organization, WHO, (2001) as one of the three principal causes of death among adolescents and young adults, and the enormity of this problem becomes even greater when suicidal ideation and failed suicide attempts are taken into consideration. Krug, Dahlberg, Mercy, Zwi, and Lozano (2002) noted that apart from some demographic factors, like sex and age, several other underlying factors may predict suicidal behaviours among adolescents and these factors which place them at risk for suicide are multifaceted and tend to interfere with their ability to cope with situations of life; and some of these characteristics as they noted include biological, environmental, social and psychiatric factors, and also factors associated with the life history of an individual.

Suicide is a composite behavioural phenomenon which involves the act of taking one's life by the self. The social, economic and psychological effects of suicide are unbearable in most societies of the world. Families, organisations and the general society are often thrown into mourning when there is an incidence of suicide.

In attempt to explain the meaning of suicide and the suicidal process, attempts have been made variously by scholars to understand the concept of suicide. Suicide takes some sequential processes; from suicidal contemplations, to suicidal plan and then to suicidal attempts which could eventually lead to death (Bertolote and Fleischmann, 2009). However, most studies on suicide usually focus on three main themes: completed suicide, para-suicide (attempted suicide) and suicidal ideation. Completed suicide refers to the act of intentionally causing one's own death, attempted suicide or para-suicide is a failed attempt to commit suicide from which the individual survived; while suicidal ideation can be known as a term for an unusual preoccupation with taking one's life by oneself (Manani, 2014).

Suicide can be explained as intentionally taking of one's life by oneself (Standheim, Bjerkeset, Gunnel, Bjorneliv, and Holmen, et.al (2014); Metalsky and Joiner Jr (1997); Nolen-Hoeksema and Morrow (1991); Benishek, Feldman, Shipon, Mecham and Lopez (2005); and Stedman (2005). World Health Organization (2011), noted that suicide is a phenomenon that has many facets involving social, biological, psychological, environmental and cultural factors. As noted by Olaseni (2018), suicide is an action and no action could possibly be carried out without the actor thinking about it first. As averred by Osundeko (2007), though suicidal thoughts is evident in Nigeria, it has not been adequately reported for the reason that it is usually surrounded by superstition and false belief; and there may be intense shock and grief which may often spread through such an area where suicide is committed. In view of this, the shame and stigma attached to suicide may not allow some Nigerian families open up to the fact that they have cases of suicide in their homes. This notwithstanding, there is public knowledge that some suicide cases abound.

Suicide is described as a fatal self-injurious act with some proof that there is intent to take one's life (Turecki and Brent, 2016). It is a complicated behavioural incident involving the process of one taking one's life by oneself. It can also be regarded as a universal social menace. The socio-psychological and economic consequences of suicide have very excruciating impact in almost all societies of the world that experience it. People who commit suicide leave their families and indeed the society in general are in an excruciating agony of mourning.

Suicidal Behaviour

Suicidal behaviours and features among adolescents have been linked by scholars (Dugas, Low, O'Loughlin, and O'Loughlin, 2015; Wilcox et al., 2010) to the relative level of individualism and the craving to discover more about self. They argue that social forces that mediate the advancement from adolescence to adulthood may cause suicidal ideation, especially in an attempt to find ways of coping through the challenges of the process of advancement. Suicidal behaviour among young people is one of the current social problems affecting the overall wellbeing of students in public universities. Suicide behaviour has currently become the third leading cause of deaths for youths between the ages of 15 and 30 years after HIV/Aids and tuberculosis (Nyorere, James, and Udom, 2020). The term suicidal behaviour according to Schlebusch cited in Okoedion and Okolie (2019) is a continuum of behaviours, which ranges from a person desiring him or herself dead to the actual act of killing oneself. Suicidal behavior ranges in degree from merely thinking about ending one's life, through developing a plan to commit suicide and obtaining the means to do so, attempting to kill oneself, to finally carrying out the act (completed suicide) (Krug, Dahlberg, Mercy, Zwi, and Lozano, in Palmer,

2011). Risk factors such as psychological distress, exposure to bullying and violence, parental involvement, and alcohol and illicit drug abuse have been associated with a significant increase in the risk for youth suicidal behaviour (Randall, Doku, Wilson, and Peltzer, 2014).

Alabi, Alabi, Ayinde, and Abdulmalik, (2015) averred that suicide behaviour is the act of killing oneself, deliberately initiated and performed by the person concerned in the full knowledge or expectation of its total outcome. Kerkhof (2004) defined suicidal behaviour as a deliberate act intended to end one's life in order to escape unbearable suffering or to help change adverse conditions of living. It is the intentional act of taking one's own life or the destruction of one's own interest or prospects. Suicidal behaviour may manifest in thoughts or imaginations, referred to as suicidal ideation. Thus, suicidal ideation is the first stage on the pathway to suicide and is the earliest stage of suicidal risk. Suicidal ideation refers to thinking about ending one's life, it ranges from infrequent feelings and wishes to be dead or thought that life is not worth living (Klonsky et al., 2016). It exists in the form of a consideration to act it out. In terms of patterns, suicidal ideation can manifest in a wide range of specificity, frequency, and intensity. In this regard, the thought of engaging in suicide has been classified into active and passive forms.

Active suicidal thought involves an existing wish to die along with a plan on how to carry out the death (Tucker & Wiesen-Martin, 2015). It also includes a specific plan that is likely to be taken, how an individual intends to kill him/herself and the intention to act on such thoughts. In contrast, passive ideation encompasses the desire to die but without a specific plan on how to carry out the act. Whether active or passive, the thoughts of hopelessness, helplessness, and worthlessness are common thought distortions associated with suicidal ideation, while impulsivity facilitates the transition of suicidal ideation to attempt (Klonsky & May, 2014). It is noteworthy that suicidal ideation does not necessarily imply that suicide will be attempted or completed. Suicidal ideation is associated with a series of risk factors that are sometimes categorised as remote and close factors (Christensen, Batterham, Mackinnon, Donker, & Soubelet, 2014). These risk factors is an interplay of many factors within different areas such as demographic, socio- environmental, psychological, and behavioural that are significantly associated with increased risk of suicidal ideation. 45% of the risk is predicted by socioeconomic factors, school problems, mental difficulties, violence, peer victimization, emotional and mental stress (Sharma, Nam, Kim, & Kim, 2015). Other predictors connected to suicidal ideation repeatedly happening over time are situations that cause pain and suffering; the abuse of drugs, inadequate or poor quality support system (Nock et al., 2008).

Walter, Vaughan, Armstrong, Krakoff, Maldononado, Tiezzi and McCarthy (2005) defined suicidal behaviour as intent to commit suicide or as having ever attempted suicide in lifetime. It implies all the intentions, ideations or actions pertaining to, leading to or involving suicide (Kastenbaum & Kastenbaum; George, in Mba, 2010). Suicidal behaviour demonstrates that something is fundamentally wrong either with the individual or with the situation in which the individuals exist or with both the individual and the situation. Suicidal behaviour is a conglomeration of some seemingly insurmountable personal problems of individuals which makes them think that the only solution is to die. Their main purpose is to seek a solution to an overwhelming problem. Kerkhof (2004) stated that suicidal behaviour is sometimes associated with the mental health status of individuals who cannot cope with their lives. Suicidal behaviour involves not only the pain, but also the individual's unwillingness to tolerate that pain, the decision not to endure it, and the active will to stop it. Continuing, he maintained that suicidal behaviour is more prevalent among young women, people with low socio-economic status such as low educational levels, the unemployed, the disabled, the divorced, the separated, and those with terminal illnesses.

Adolescence

Adolescence is a phase in life during which young people are mostly susceptible to many risks, especially regarding their sexuality. It is a time of opportunity and risk. During this time, attitudes, values and behaviours that form a young person's future begin to develop and take shape. During this period, they often lack access to adequate information, guidance and direction on issues crucial to their development needs. It is a distinct phase of the developmental life cycle in humans and other animal species (Elliot & Feldman, cited in Cutis 2015). Among humans, adolescence is a complex, multi-system transitional process involving progression from the immaturity and social dependency of childhood into adult life with the goal and expectation of fulfilled developmental potential, personal agency, and social accountability (Greenfield, Keller, Fuligni, & Maynard, Graber & Brookes-Gunn, in Cutis, 2015; Modell & Goodman, in Cutis 2015). This critical developmental period is conventionally understood as the years between the onset of puberty and the establishment of social independence (Steinberg, 2014). The most commonly used chronologic definition of adolescence includes the ages of 10-18, but may incorporate a span of 9 to 26 years depending on the source (APA, 2002). Inconsistencies in the inclusion criteria of "adolescence", and adolescent sub- stages, can create confusion in the construction of adolescent research and adolescent program planning.

Asogwa and Ekechukwu (2022) defined an adolescent as a person who has left the childhood behaviors, be more matured and begins to exhibit some other characteristics that will enable him or her flow into real adulthood. They noted further that adolescence is not only a vital stage of growth and development but also the stage when young people extend their relationships

beyond parents and family and are intensely influenced by their peers and the outside world. Adolescence is often described as a period of transition from childhood to adulthood. In some societies the beginning of this stage is marked with celebrations. According to the World Health Organization, WHO (2018), adolescence is a period during which an individual progresses from the point of initial appearance of the secondary sexual characteristics to that of sexual maturity. This period is accompanied by various changes that are significant in physical, intellectual, social and emotional areas. Ibrahim (2009) described an adolescent as someone who is unstable, angry, moody, self conscious and inexperienced in handling emotional problems.

Adolescents are often faced with various expectations from society, peers and family members, which may sometimes be too high and possibly unattainable for them; thereby arousing some level of frustration and anxiety, nervousness and stress; and consequently a sense of losing control (Patton, Sawyer, Santelli, Ross, Afifi, Allen, et al., 2016). In order therefore to successfully cope with these emotions and confront these challenges, these adolescents have to acquire a considerable measure of supporting resources such as a secure living condition, stable relationships, and reliable economic resources. However, certain psychosocial risk factors may constitute hindrance towards accessing these resources which may bring about some feelings of distress leading to suicidal behaviours.

Emotion Dysregulation and Suicide

Emotion regulation is a term normally used to explain the ability of an individual to efficiently handle and react to an emotional experience. Most times, people involuntarily use emotion regulation strategies to cope with difficult situations on a daily basis (Rolston and Lloyd-Richardson, n.d). Emotion dysregulation is the term used to describe an inability to regularly use healthy strategies to diffuse or moderate negative emotions (Rolston and Lloyd-Richardson, n.d). While all people occasionally use less than ideal emotion regulation strategies, individuals who regularly experience what feels like overwhelming, intense negative emotions are much more likely to rely on unhealthy strategies, like self-injury. Thinking about suicide might be caused by decreased hardiness and increased perception of stress, (Abdollahi, Abu, Yaacob & Ismail, 2014).

Humans generally use different kinds of emotion regulation approaches and may apply them to various situations in order to adjust to the environmental demands. While of these strategies may be healthy, others are not. Healthy coping strategies are harmless, and can help diffuse harmful emotions, and give room for a healthier and better understanding of the cause of such emotional experience. Inability to control one's emotion in times of distress may trigger suicidal behaviours. Emotion dysregulation may be a well-established risk factor for suicide, with some suggestion that it is also an underlying mechanism for suicidal ideation (Arria et al., 2009). Arria and colleagues (2009) noted that people with poor emotion regulation skills have been found to have suicide ideation despite having low levels of depressive symptoms.

Genetic predisposition and suicide

Studies on gene related factors of suicide or the genetics of suicide have been so daunting a task. It is a lot easier to discuss some genetically-connected simple illnesses such as epilepsy, diabetes, etc. There may be some genetic linkage with suicidal behavior, but an individual's environment may also contribute. Different families witness various cases of deaths by suicide and this may be connected to some genetic components. Suicide appears to be very heterogeneous, and most persons who commit suicide grapple with mental illness (DiBlasi, Kang and Docherty, 2021). A number of studies tend to have examined the extent of association between genetic factors and individual differences in suicide and these studies have tremendously found a genetic component accounting for between 40-50% of the variance (Smith et al, 2012). Although this implicates a strong genetic influence on suicidal behavior, the remaining 50-60% of the variance as noted by Smith et al, (2012) is accounted for by psychological and environmental factors. Consistent with this are decades of research that have identified important psychological risk factors for suicidal behavior (e.g., depression, schizophrenia, borderline personality disorder) (Joiner, Orden, Witte, and Rudd, 2019) and environmental risk factors for suicidal behavior such as childhood abuse, unemployment, and incarceration (Beautrais; Plunkett et al.; Binswanger et al.; Kariminia et al.; Bastia and Kar, cited in Smith et al, 2012). Genetic effects are largely assumed to be additive and some genetic effects can be interactive, such that their effects differ depending on the presence of other alleles; these are non-additive genetic effects (Smith, Ribeiro, Mikolajewski, Taylor, Joiner and Iacono, 2012).

Self Esteem and Suicide

Self-esteem has been identified as being associated with mental health and wellbeing, and has been associated with health risk behaviours that are also associated with poor mental health. Self-esteem according to Rosenberg cited in Soto-Sanz et al (2019) is defined as an attitude, favourable or unfavourable, that people have about themselves. It is as a way in which an individual positively or negatively evaluates themselves. Recently, low self-esteem has been suggested as being associated with suicidal behaviour among adolescents and young people belonging to community samples (O'Connor, Dooley, & Fitzgerald, 2015). Self-esteem is frequently noted as a correlate, and often as a predictor, of one or another of the components of the suicidal process (Hidaka et al. 2008).

There seems to be relationship between self-esteem and the suicidal process. Self-esteem is regarded as a stable personality characteristic which reflects a sense of personal worth (Rosenberg, cited in Thompson 2010). Studies (Eskin, Ertekin, Dereboy, and Demikiran, 2007) have reported that self-esteem is a powerful internal protective factor against students' suicide behaviours. People with low self-esteem develop a feeling to harm themselves because they are not living up to their expectations that may be developed internally by the students and externally by other (Kaur, and Rani, 2012).

Most Nigerian students are confronted with lots of stressful life challenges like lack of resources to cater for themselves, demanding academic work in school, psychosocial conflicts like relationship problems; and so on; and which may engender pressure and aggression among them and may make them inclined to suicidal behaviours in their attempt to deal with these transformational changes. Another very serious challenge is that many of these students do not feel free to talk about their feelings or pains with anybody. These stored-up feelings and hurting experiences may in turn lead to severe hopelessness, resulting in suicidal thoughts and then behaviours. Few studies, if any, had been done on suicidal behaviour and psycho-biological factors influencing it among adolescents. This raises an increasing need to investigate the psycho-biological predictors of suicide behaviour among adolescents in the University of Port Harcourt, Nigeria.

Research Questions

The study is guided by the following research questions:

1. To what extent does emotion dysregulation predict suicide behaviour among students in University of Port Harcourt, Rivers State?
2. To what extent does genetic predisposition predict suicide behaviour among students in University of Port Harcourt, Rivers State?
3. What is the extent to which self esteem predict suicide behaviour among students in University of Port Harcourt, Rivers State?

The following hypotheses tested at 0.05 level of significance will guide the conduct of the study:

1. Emotion dysregulation does not significantly predict suicide behaviour among students in University of Port Harcourt, Rivers State.
2. Genetic predisposition does not significantly predict suicide behaviour among students in University of Port Harcourt, Rivers State.
3. Self esteem does not significantly predict suicide behaviour among students in University of Port Harcourt, Rivers State.

Methodology

The design for this study is correlational design. The population consisted all undergraduate students of the University of Port Harcourt, Rivers State during the 2020/2021 academic session. The sample for this study was 600 students. Multistage sampling technique was employed in drawing the sample. The instrument for collection of data for this study was a questionnaire named "Suicide Behaviour Scale (PSBS). It is divided into two sections: A and B. Section A was designed to elicit information on the respondent's demographic profile (gender). Section B further contains items on psycho-biological predictors of suicide behaviour. Data generated from the instrument were analyzed using simple regression.

Results and Discussion

Research Question One: To what extent does emotion dysregulation predict suicide behaviour among students in University of Port Harcourt, Rivers State?

Hypothesis One: Emotion dysregulation does not significantly predict suicide behaviour among students in University of Port Harcourt, in Rivers State.

Table 1: Simple Linear regression analysis showing emotion dysregulation as a predictor of suicide behaviour among students.

	R	R Square	Adjusted R Sq.		Std. Error of the Est.		
	.346	.120	.125		11.720		
Model	Sum of Sq.	df	Mn Sq.	F	alpha	Sig.	Result
Regression	.016	1	.016	.000	0.05	.013	Significant

Residual	82146.458	598	137.369
Total	82146.473	599	

From the table, calculated r value is 0.346 while r-square is 0.120. Adjusted r value is 0.125 and the standard error is 11.720. In answering the research question, the R-square value has shown that emotion dysregulation account for 12% (0.120×100) of suicide behaviour among students. Also, calculated sig-value was 0.013. Therefore, since sig ($p=0.013 < 0.05$) is less than the alpha level, the null hypothesis is rejected meaning that emotion dysregulation is a significant predictor of suicide behaviour among students.

Research Question Two: To what extent does genetic predisposition predict suicide behaviour among students in tertiary institutions in Rivers State?

Hypothesis Two: Genetic predisposition does not significantly predict suicide behaviour among students in tertiary institutions in Rivers State.

Table 2: Simple Linear regression analysis showing Genetic predisposition as a predictor of suicide behaviour among students in tertiary institutions.

R	R Square	Adjusted R Sq.	Error of the Est.				
.073	.005	.004	11.68				
Model	Sum of Sq.	Df	Mean Sq.	F	alpha	Sig.	Result
Regression	439.77	1	439.77	3.21	0.05	.073	Insignificant
Residual	81706.70	598	136.63				
Total	82146.47	599					

Table 2 depicts calculated R-value of 0.73 while R-square is 0.005. Adjusted r value is 0.004 and the standard error is 11.68. The R-square value has shown that genetic disposition account for only 0.5% (0.005×100) of suicide behaviour among students. Also, calculated sig-value was 0.073. Therefore, since sig ($p=0.073 > 0.05$) is greater than the alpha level, the null hypothesis is retained meaning that genetic disposition is not a significant predictor of suicide behaviour among students in University of Port Harcourt Rivers State.

Research Question Three: To what extent does self-esteem predict suicide behaviour among students in tertiary institutions in Rivers State?

Hypothesis three: Self-esteem does not significantly predict suicide behaviour among students in tertiary institutions in Rivers State.

Table 3: Simple Linear regression analysis showing self-esteem as a predictor of suicide behaviour among students in tertiary institutions:

Model	R	R Square	Adjusted R Square			
1	.273	.072	.037			
Model	Sum of Sq.	Df	Mean Sq.	F	Sig.	Result
Regression	419.774	1	419.774	6.219	.023	Significant
Residual	8706.700	598	136.633			
Total	82146.473	599				

Table 3 shows calculated R-value is 0.273 R-square is 0.072 while adjusted R-value is 0.037. In answering the research question, the R-square value has shown that self-esteem account for only 7.2% (0.072×100) of suicide behaviour among students. Also, calculated sig-value was 0.023. Therefore, since sig ($p=0.023 > 0.05$) is less than the alpha level, the null hypothesis is rejected meaning that self-esteem is a significantly predictor of suicide behaviour among students in tertiary institutions in Rivers State.

Discussion of Findings

Findings revealed that emotion dysregulation is a significant predictor of suicide behaviour among students in University of Port Harcourt, Rivers State. It is noted that human beings in various situations use different kinds of emotional regulation approaches to apply to situations on how to adjust. This being the case, it is noted that the ability or the inability of individuals to control their emotion in times of distress may trigger suicidal behaviours. This finding means that if individuals are able to control their emotional or regulate it in any situation, then they may likely not be victims of suicide or suicide related behaviours. For undergraduate students, the ability of one to adjust to whatever stress they pass through is a function of emotional dysregulation. The finding of the study is not also surprising to the researcher because to the best of the researcher's knowledge, just like emotional intelligence, emotion regulation if properly handled, have proven to assist individuals in handling situations.

Furthermore, the result revealed that genetic disposition is not a significant predictor of suicide behaviour among undergraduate students. Thus, the current findings simply means that having history of suicide in the family may not determine if an individual may be prone to suicide or suicide related behaviours. The finding is a bit expected and as well surprising to the researcher because not all cases have genetic disposition. Just like the facts quoted earlier, most biological cases are genetically related while others are mere beliefs especially which that comes from cultural orientation. On the other hand, it is a bit confusing and surprising to this research because over the years, through observations, there are related cases where such histories repeat itself in family lineages. Findings like that of Lievens; Coetsier, De Fruyt and De Maeseneer, (2002), are all pointers to the fact that genetic disposition are not accurate predictors of suicide or suicide related behaviour.

In addition, the result showed that self-esteem is a significant predictor of suicide behaviour among students. The implication here is that if students have low self-esteem, this may lead them to suicide tendency and being involved in suicidal behaviours. On the other hand, those with high self-esteem may have a good sense of self and may have less need to contemplate suicide or engage in suicide behavior. This finding corroborates those of Eskin, Ertekin, Dereboy, and Demikiran, (2007) who reported that self-esteem is a powerful internal protective factor against students' suicide behaviours. In the same vein, Fergusson, Horwood and Swain-Campbell cited in Olubukola, (2020) found that resiliency to suicidal behaviours was associated with increased self-esteem among young people. Self esteem is a very important factor in the development of suicidal behaviors because as averred by Kaur and Rani (2012), people with low self-esteem develop a feeling to harm themselves because they are not living up to their expectations that may be developed internally by themselves and externally by others. However, studies show that as children develop cognitively, they begin to base their self-evaluations on external feedback and social comparisons; and as they grow older, they form a more balanced and accurate appraisal of their academic competence, social skills, attractiveness, and other personal characteristics.

Conclusion

Based on the findings, it is concluded that emotional dysregulation and self esteem predicted suicidal behaviour among undergraduate students of the University of Port Harcourt. But genetic predisposition did not predict suicide behaviour. Suicide and suicide related behaviour have been on the increase in the society of recent. To add to this, the harsh economic conditions and unbelievable cases recorded have shown that this ugly factors have increased in our Society today. Contributors to this ugly phenomenon may be attributed to personal factors like affective dysregulation and pessimism as well as some social factors like the family setup. On the whole, the catastrophic effect of suicide or suicide related behaviours is much on the individual and the society at large and adequate or proper counseling is a sure way to combat this ugly trend in the society today.

Recommendations

On the basis of the findings, it is recommended that tertiary institutions should establish counselling unit that is fully functional and with qualified counsellors. Also, lecturers and the school authorities should make it a point of duty to sensitize and encourage students to visit the counselling units from time to time in order to get guidance on how to cope with challenges of life.

Since findings showed that emotional dysregulation is a significant predictor of suicide behaviour among student, it is recommended that students in tertiary institutions should be taught emotional intelligence skills like self-management, management of relationships and problems, etc. as this will help them in self-regulation in every negative situation they find themselves.

Students with low self esteem should undergo counselling on how to boost their self esteem. This will help them build confidence in themselves and be able to withstand pressures of life. They should be encouraged by more experienced lecturers and even fellow students to visit the counselling unit for help.

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