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Case Report Open Access

Attributes of Patients with Suicide Attempts Seen At the Niger Delta University Teaching Hospital within a Year: A Case Series

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Abstract

Suicide is a leading cause of death worldwide. The rates of suicide attempts are on the rise especially in Nigeria and other developing countries. Youths are mostly affected and this presents a potential danger to national economy and well being. Unfortunately, the exact magnitude of these problems in Nigeria is unknown due to scanty literature. This underscores the need for further research.

We present 5 case reports of patients with suicide attempts who were managed at the NDUTH within the period of one year. Our aim was to identify factors that are common among these patients and which could be highly associated with their suicidal behaviors. More so, to compare these factors with existing literature and to highlight treatment given and outcomes.

Depression, dysfunctional family settings and financial/ relationship difficulties are common associated factors leading to frustration and suicide attempts. There is need for continuous health education and effective primary health care system to improve prevention of suicidal behaviors.

Keywords: Patient attributes; Suicide attempts; Predisposing factors; A year period; Niger delta; Prevention

Abbreviations

A & E-Accident and Emergency; TD-Twice Daily; CR-Controlled Release; EURO-European; HIV-Human Immunodeficiency Virus; NDUTH-Niger Delta University Teaching Hospital; RVD-Retro Viral Disease; SSRI-Selective Serotonin Reuptake Inhibitor; WHO-World Health Organization

Introduction

Suicide is believed to be one of the leading causes of death worldwide and appears to be on the rise especially in developing countries [1,2]. China and India jointly account for 54% of suicides globally [3]. Most of the data on suicidal behaviors come from the developed countries [4,5]. Figures from developing countries are scanty especially those from sub-Saharan Africa. It was previously thought that suicide and suicidal behaviors were rare occurrences in this part of the world. One reason advanced for this is that the African, psychologically, exhibits an 'external locus of control' which shields the ego from blame and puts the blame on external objects. However, recent reports suggest otherwise [1]. In most African and Nigerian cultures, suicide and suicide attempts are considered as taboos. As such they are largely under-reported, thus accounting for the perceived low prevalence [3].It could also be that cases of suicide attempts are increasing because our society is becoming increasingly westernized and our protective extended family system is rapidly going into extinction [6]. Suicide is usually preceded by suicidal intents, plans and attempts [1,4,7,8]. The reported rates of suicide attempts vary in different countries and regions of the world. However, the average lifetime global prevalence is about 2.7% according to a cross-national survey in 17 selected countries [1]. The individual rates range between 0.7-4.7% and 0.5-5% for developed and developing countries respectively [1]. A study across 9 countries found rates ranging from 0.72% in Lebanon to 5.93% in Puerto Rico [5]. The National co-morbidity Survey reported 4.6% lifetime prevalence of suicide attempts in the United States [4]. The average incidence of parasuicide in Europe was 167/100,000 males and 222/100,000 females in the WHO/EURO Multicenter study [9]. In another WHO study, 0.4 to 4.2% of respondents had attempted suicide in the past [8]. In a recent study from Benin republic, 28.3% of High school students had attempted suicide in the past year under report [10]. Omigbodun and colleagues report about 12% prevalence of suicide attempt among adolescents in south west Nigeria in the past year [11]. Suicide attempts have been found to be commoner among females in all these studies [1,2,4,10,11]. Other risk factors for suicide attempts include being young, less educated, unmarried, divorced/separated, dysfunctional homes, being in an abusive marriage/relationship, having a Psychiatric disorder, persistent suicidal ideations, previous suicide attempt(s), alcohol/substance abuse, living alone, unemployment, suffering from a chronic and debilitating disease, physical abuse, academic failure among the young and sexual abuse[1,3-5,10-12]. Some variations in risk factors for suicidal behaviors have been observed between developed and developing countries [3]. Living alone, social rejection, marital conflicts and depression are commoner associations in developed countries compared to impulse control disorder, inter-generational conflicts, love and examination failures in developing countries. The common

methods of suicide attempts used in developed countries are firearms, car exhaust and poisoning, whereas in developing countries they are pesticide poisoning, hanging, cutting of body parts and self-immolation [3]. Due to the scanty data on suicidal behaviors and patterns in Nigeria, a lot of research should be encouraged to unravel the nature and scope of these phenomena in our environment. This will enable proper planning and implementation of appropriate preventive and management strategies. This, therefore, underscores the relevance of this article.

We report the 5 cases of suicide attempt who were jointly managed by the Medical and Mental Health teams in the Medical wards and A &E unit of NDUTH between November 2012 and December 2013.

Case presentations

Case 1

F.U is a 38 year old male civil servant, not married, living with his younger brother and aged mother in the extended family setting. He was admitted to the Department of Internal Medicine of NDUTH with complaints of passing loose watery stools of three weeks duration and vomiting of one week duration. There was associated history of fever (Temperature-39.4°C), loss of appetite and weakness. There was no history of change in food or water source or ingestion of any herbal concoction. He had been diagnosed HIV positive at a Federal hospital few months prior to presentation and was placed on highly active antiretroviral therapy and anti-Koch for RVD stage 4 and abdominal tuberculosis respectively. He was poorly adherent to those medications. He was placed on the same medications above and also given intravenous antibiotics and fluids. His appetite and energy improved significantly and he became ambulatory. He was observed to leave the ward and return with permission of the nursing staff.

After three weeks on admission, patient again left the ward for an unknown destination. He came back some minutes later with complaints of severe abdominal pain and vomiting. He admitted to ingesting rat poison (otapiapia) when he left the ward because he was tired of living and wanted to die. The managing physicians examined him and made an assessment of acute gastritis secondary to ingestion of rat poison (organophosphate poisoning) and attempted suicide. Patient was stabilized and a consult was sent to mental health unit.

Mental health review revealed a middle aged man who was continuously saying 'life don tire me' (meaning 'I am tired of living'). He had a low mood and decreased energy level. Mental state examination revealed a middle aged man who was chronically ill-looking, with depressed mood and affect; his speech was in low tone but coherent and relevant. His thoughts were preoccupied with hopelessness and pessimism; there were no delusions or hallucinations. Cognitive functions were impaired globally.

An impression of severe depression with deliberate Self harm was made. Patient was counseled and commenced on tablets sertraline 50 mg daily. Regular counseling sessions were commenced after a week of review to help reverse patient's negative cognitions. Three weeks later, the patient had shown some remarkable improvements in his mental state. He no longer wished to die but had resolved to adhere to all medications and attend clinics as required. He was more interactive and admitted to improvements in appetite and energy levels. Patient and his brother requested for discharge and outpatient care which was granted after repeated assurances that patient will continue to adhere to his treatment and follow up. He was seen at the outpatient clinic on appointment days and has been stable on medications.

Case 2

O.B is a 60 year old female farmer, married into a polygamous home with 7 children; she is a Christian, of the Ijaw tribe, with no formal education. She had a past history of suicide attempt and mental illness characterized by wandering, talking to self and suspiciousness. She is not a known hypertensive or diabetic. She was admitted through the accident and emergency unit with a history of ingestion of 2cups of a herbicide (Paraquat) about three hours earlier for no obvious reason. At presentation she complained of vomiting and mouth sores. She was conscious and alert; no abnormality was found on abdominal examination. Gastric lavage was carried out and she was placed on intravenous dextrose saline 500mls 8 hourly. She was also given intravenous cimetidine 200mg twelve hourly, tablets augmentin 625mg bd, tablets prednisolone and diazepam. The Mental Health team was invited to review the patient. History and mental state examination showed patient was socially withdrawn, occasionally restless, talking to self, paranoia and had third person auditory hallucinations.

An assessment of paranoid schizophrenia with deliberate self poisoning was made. She was commenced on tablets risperdal 2mg daily and diazepam 5mg nocte.

The surgical team was invited to review the patient due to the associated difficulty with swallowing (worse with solid food). The surgical team reviewed and requested a barium swallow and meal, plain chest x-ray and serum electrolytes, urea and creatinine. Electrolytes were within normal limits but urea and creatinine were elevated. Urea was 11.9mmol/L while creatinine was 530 μmol/L. Chest x-ray revealed evidence of bilateral basal pneumonitis. Barium studies were not done due to financial constraints. The Nephrology unit was invited to review patient. They requested daily electrolyte urea and creatinine, liver function test and commenced intravenous normal saline with strict input and output chat. Urgent dialysis was also prescribed but could not be done due to financial constraints.

Twenty four hours later and nine days after presentation, patient developed difficulty with breathing and was gasping for breath. Cardiopulmonary resuscitation was instituted but patient died few minutes later.

Case 3

O.L is a 19 year old female secondary school student, Ijaw, single, Christian, from a polygamous home and parents are separated. She was brought into the accident and emergency unit with 30 minutes history of loss of consciousness following ingestion of 25 tablets of phenytoin following a quarrel with her grandmother who called her a bastard. At presentation she was found to be conscious but drowsy with a Glasgow coma score of 14/15. She had a past history of epilepsy and depression which was being managed in a private hospital with phenytoin and diazepam. She also took herbal concoctions intermittently. There was no history of psychoactive substance use. The medical team made an assessment of 'attempted suicide secondary to drug overdose in an epileptic patient' and commenced treatment with intravenous normal saline 1 litre 8 hourly, intranasal oxygen at 4 litres/minute on account of respiratory distress (respiratory rate 30 cycles/minute) and regular vital signs monitoring.

The mental health team was invited to review the patient. History revealed a young female who was living with the father and step mother in the extended family home. She was abandoned by the mother at age of 3 years following marital conflicts. She had threatened to kill herself 3 months earlier after she was stopped from marrying a man she ran away with. She had stopped going to school after several failures. She was diagnosed with epilepsy a year before. There was associated history of low mood, weeping episodes and anhedonia. Appetite and energy levels were adequate. There was also history of visual hallucinations and irrational talk.Mental state examination revealed a young lady who was calm and cooperative. Mood and affect were depressed; speech was low-toned, coherent and relevant. She was preoccupied with thoughts of about going back to school.

Assessments of severe depression with psychotic symptoms, deliberate self harm and generalized tonic-clonic seizure disorder were made. She was subsequently commenced on tablets Carbamazepine (CR) 200 mg bd, tablets folic acid 5mg daily, intramuscular fluphenazinedecanoate 12.5mg stat and tablets setraline 50mg daily. Her mental state became stable and she had remarkably improved after about a month on admission. She was discharged on her medications and placed on outpatient care.

Case 4

R.L is a 17 year old female secondary school dropout, single, Christian from a polygamous home. She was brought into theaccident and emergency unit with history of loss of consciousness and irrational behavior of few minutes duration. The underlying problem apparently began a week before when she was accused of stealing ten thousand nine hundred naira (N10,900) from her landlord's daughter. Her efforts to prove her innocence failed so she decided to end her life by ingesting local gin mixed with rat poison ('Sniper'). Subsequently, she started having severe abdominal pain, vomiting and lost consciousness. The casualty officer administered intravenous dextrose saline, intramuscular promethazine, intravenous diazepam stat and invited the mental health team to review.

History revealed that patient had been having relationship difficulties with her family which made her sad all the time. The parents were separated and she was living with her mother while her two siblings were living with the father and his second wife and two children. She was unemployed and had financial difficulties. She also complained of being constantly bullied by her mother who threatened to send her to live with the father. There was also history of low mood, weeping spells and low self esteem prior to suicide attempt. No past history of psychiatric illness or suicide attempt.An assessment of deliberate self harm to rule out severe depression was made. Organophosphate poisoning was queried. The plan was to admit patient and conduct full blood count, serum electrolyte, urea and creatinine, and urinalysis. Intravenous diazepam 5mg twelve hourly and tablets amitriptyline 50 mg nocte prescribed. Her mother was also counseled to support the patient's recovery.

At ward review five (5) days later, patient no longer expressed suicidal ideations. Her sleep had improved but her appetite and energy were still inadequate. None of the requested investigations were done due to financial constraints. The mother requested for discharge because she felt the patient had improved and she had no money to pay accumulated bills. Patient was discharged on request. Tabs amitriptyline was substituted with tablets setraline 50mg daily. Patient was placed on outpatient care and scheduled for family therapy sessions. She has been stable on follow-up visits so far.

Case 5

I.I is a 21 year old female with secondary level of education, single, Christian and from a monogamous family. She was rushed to the accident and emergency unit with an hour history of loss of consciousness and abdominal pain following ingestion of rat poison (sniper). Patient was found by relatives writhing on the floor in severe distress after which she lost consciousness. She regained consciousness shortly after presentation without any intervention. Patient's problem started a week before when her parents informed her that due to financial constraints, they would be unable to sponsor her education at a polytechnic where she gained admission to study accountancy. A year before, she had failed to secure admission. So she dreaded the possibility of losing the present opportunity. When her pleadings with her parents failed, she was overcome with sadness and decided to end her life. There is a past history of psychiatric illness characterized by sadness, loss of appetite, helplessness, reduced energy, anhedonia and insomnia. She was managed at a psychiatric hospital then but discontinued treatment after she improved. She is the 4th child in a family of 8. The father is a retired soldier suffering from stroke, while the mother is a petty trader. There was no past history of medical admission and no family history of mental illness.

She was stabilized by the casualty team before the mental health team was invited to review. Mental state examination revealed a young lady, calm and quiet with depressed affect and mood. There was intermittent weeping episodes, speech was in low tone but coherent. She had no perceptual abnormalities and was insightful. An assessment of deliberate self harm secondary to severe depression was made.

Patient and her family were counseled. She was commenced on tablets amitriptyline 50 mg nocte (an SSRI antidepressant was preferable but due to financial constraints amitriptyline was chosen instead).

Two days later, the patient's mother requested for discharge because she felt the patient was well and did not want to spend more money on further treatment. The patient had improved. She no longer had suicidal ideations and had no plan to kill herself. She showed remorse for her actions and had reached a compromise with her parents on her education. They agreed she would forgo the present polytechnic admission to enable them save some money monthly for the following year. We had no other option than to grant their request and discharge the patient. She never presented for follow up visit.

Discussion

The cases presented above suggest that suicide attempts may be commoner than previously thought. Pathways to care studies have shown that majority of patients do not present to formal orthodox care first [13,14]. They go to traditional healers and spiritualists first and come to hospital as a last resort. Even when they seek orthodox care, most go to quacks, chemists/pharmacies or private general practitioners. So it may be possible that most cases of suicide attempts will not present to the NDUTH especially if the patient remains stable after the attack. Four of the cases presented were rushed into the A & E because they presented with potentially life-threatening sequelae of suicide attempts. Females attempt suicide more than males as reported in literature [1, 2, 4, 10, 11]. This is also the case here as 4 out of 5 of

the cases are females. Adolescents and young people attempt suicide more than any other age group [1, 3, 4, 9, 15].This is evident in the cases above: 3 out of 5 are teenagers, 1 is 38 years old and the other is 60 years. Young people are full of expectations and are more likely to take very drastic actions if things are not going the way they expect. Other factors common among the cases above are having a past or current psychiatric illness (100%), being single (80%), unemployed or facing financial difficulties (80%), polygamous family setting (80%), dysfunctional homes (60%)and frustrations/relationship difficulties with family members in 60% of the cases. These factors are well documented predisposing factors to suicide attempts. All the cases presented had past or ongoing mental health problems at time of presentation. Four had depression, one with schizophrenia. Depression is known to be the leading predisposing factor to suicidal behaviors worldwide [1, 2, 3]. However, one study reported impulse control disorders as being more predisposing to suicide attempts than depression in Nigeria [3]. This was not the case in our patients presented. It could be possible that the mental health team had missed possible impulse control disorders due to paucity of information.The first patient had retroviral disease and abdominal tuberculosis while the third had epilepsy. Co-morbidity of chronic physical and mental health problems have been shown to increase the risk of suicide attempts [16]. Poor adherence to treatments for physical or mental health disorders are known to lead to poor treatment outcomes and predispose to sufferings, distress and suicide attempts [16]. This is clearly evident in at least 60% of the cases presented. It therefore underscores the need for a structured patient and care giver education programme on importance of adherence to treatment schedules.

All our patients attempted suicide by ingesting chemical substances (rat poison and phenytoin). These substances are readily available and affordable. They are also common methods used in attempting suicide in developing countries [3]. Use of firearms is not common here because they are not readily available.

Most of our patients appeared to have benefitted from quick and active medical and psychiatric interventions after suicide attempts. With psychiatric medications and counseling involving immediate family members, most of the patients improved within a short period. However, caregivers were generally not motivated to complete patient's treatment or continue follow up visits. This shows an obvious low priority on health. Ignorance, poverty or combinations of both could be responsible for this.

Conclusion and Recommendations

Suicide is a leading cause of morbidity and mortality globally. Cases of suicide attempt and completed suicide are on the rise in Nigeria and other third world countries. Harsh socioeconomic climates and poor health care systems are obvious linkages to this trend. If this continues unchecked, the economies in these impoverished nations will further decline because the youths (the main productive age group) suffer mostly from suicidal behaviors. There is also need for comprehensive research and data on the exact magnitude of suicidal behaviors in Nigeria.

As previously stated above, there is need for a well planned programme of continuous public enlightenment and education on health matters. Prevention of suicidal behaviors should be a major public health priority and health education is key to this. At the individual level, identification of risk factors is important. Easy access to health care is essential and can be achieved by strengthening our primary health care system.

Consent

The Ethics and Research committee of the NDUTH had approved the reporting. Written informed consents were obtained from the patients' and/or immediate caregivers/family members for the purpose of this article. All patients' information and records were handled with strict confidentiality.

Competing interests

The authors have declared no competing interests

Authors' contributions

CUE was directly in charge of the patient's liaison management and organized most of the cases write up. EID was also involved in the management of the patient and did the literature search. He also contributed to the write up.

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