

RESIDENTIAL DIFFERENCES IN SUICIDE IDEATION THROUGH PHYSIOLOGICAL EFFECTS OF ELECTRIC CURRENT AMONG SECONDARY SCHOOL STUDENTS IN SOUTH EAST NIGERIA

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ABSTRACT: *The study was designed to determine residential differences in suicide ideation through physiological effects of electric current among secondary school students in South east Nigeria. The cross-sectional survey research design was used to study 520 secondary students in the area under survey. A self-constructed suicide ideation inventory (SII) was used for the study. The SII consisted of 35 items which was grouped into six ideation areas. Face validity of the instrument was determined by five experts in psychology and health education. The reliability of the inventory yielded a Cronbach Alpha internal consistency coefficient of 0.89. This index was considered high enough based on Ogbazi and Okpala's (1994) criteria of 0.60 acceptable for good instruments. Out of 520 copies of the questionnaire administered, 513 representing about 98.7% return rate, were used for analysis. Mean, standard deviation and t-test were used to analyze the data. While mean was used to describe the data; standard deviation was used to determine how the responses of the respondents vary and t-test statistic was used to analyze data in order to ascertain the differences in suicide ideation between the two categories of students. A mean of 2.50 and above was regarded as potentially dangerous suicide ideation and a mean below 2.50 was regarded potentially not dangerous. The results showed that students living in the rural area have a lower suicide ideation score than the students living in the rural area. However, no significant difference was found in the suicide ideation scores between students living in urban and rural areas. Health education intervention is required to further reduce the suicide ideation of both categories of students.*

KEYWORDS: Residential, Suicide, Ideation, Electric, Current, Students, South East Nigeria.

INTRODUCTION

Suicide ideation is the conceptualization and pasting of mental images of self-killing, self-murder or self-slaughter. According to Wikipedia (2014), suicide ideation is a mental plan and imagination formed by thinking seriously about self-slaying. It is a critical stage of psychosis whereby the individual devalues continued self-existence, preferring to terminate his own existence as a human being. Suicide ideation is an abstraction negatively skewed toward self-slaughter, yet not noised abroad or any vivid sign to show. It is this lack of vivid sign and silence associated with suicide ideation that makes most victims to resort to achieving their evil intention through such a silent killer like the physiological effects of electric current.

Electric current is defined as the free flow of elections from one atom to another along a conductor (Donnelly, 2005). It is all invisible movement of charged particles such as electrons, protons and neutrons like ink atomic fission or nuclear fission. Sustained electric current and an appropriate electric pressure constitute the type of secondary source of energy called electrical energy. Electrical energy is the form of energy usually carried by wires or supplied by batteries used to power machines, equipment, appliances, computing systems, lighting fittings and heating devices. It is used in the offices, homes, schools, industries and diverse business concerns where victims of suicide ideation live and work or school.

Victims start their evil ideation through constant interaction with electrical systems that are potential sources of danger and death while working quietly. The potential dangerous effects of electric current can ray its ugly head from: (a) rotating electrical machinery, catching-up and grinding a victim (b) electro-thermal fire out-break burning lives and properties, and (c) direct passage of electric current through human biological system due to human flesh direct contact with electrical systems 'live part' (i.e., elementary charged particle or parts of the electrical system). This third dangerous effect of electric current is called physiological effect of electric current which may instantaneously kill somebody and yet very silently. Physiological effect of electric current is defined as the interaction of predominantly atoms of metallic non-living elements (matter) associated with electricity and the living matter atoms, cells, tissues/organs of human being. This definition agrees with the fact that physiology generally refers to the branch of biology that deals with the functions and activities of life or of living matter and their organs, tissues and cells together with all the chemical and physical phenomena involved (Damron, 2009). Hence physiological effect of electric current is electrolysis process which involves electrons of non-living matter such as copper and aluminum moving into the atoms of living matter such as human being and animal driving away the electrons attached to these living atoms successively taking their places in the living atomic orbits. This electrolysis or electro-chemical process pushes away all the electrons in human atoms, cells plasma, tissues, etc exchanging them with dead elections of copper, aluminum, etc thereby leaving the victim, who is termed to have received "electric shock" dead in a matter of seconds depending on the pressure and frequency of the electrical energy source.

Physiological effect of electric current, non-professionally called electric shock or electrocution is fourth among the listed general effects of electric current. Morley and Hughes (2008) outlined the first three effects as follows (1) magnetic effect of electric current (2) heating effect of electric current and (3) chemical effect of electric current. These effects are actually derived from the principal sources and applications of electrical energy. However, the physiological effect is a secondary derivative and most negatively inclined among the effect of electric current. That is why most negatively thinking youths and adults resort to suicide ideation through the physiological effect of electric current. These negatively thinking individuals are usually at different stages of mental derailment or mental ill health may be resulting from some underlying physical or emotional disorders. Their characteristics and suicide ideations also differ grossly due to the differences in their respective residential places and locations. The study was therefore set out to determine the differences in suicide ideation among secondary school students living in urban and rural areas in southeast, Nigeria. One hypothesis was postulated in the study thus: there is no significant difference in the suicide ideation between students living in urban and rural areas in the southeast, Nigeria.

METHODS

The cross-sectional survey research design was used to study 520 secondary students in the area under survey. A self-constructed suicide ideation inventory (SII) was used for the study. The SII consisted of 35 items which was grouped into six ideation areas. Face validity of the instrument was determined by five experts in psychology and health education. The reliability of the inventory yielded a Cronbach Alpha internal consistency coefficient of 0.89. This index was considered high enough based on Ogbazi and Okpala's (1994) criteria of 0.60 acceptable for good instruments.

Out of 520 copies of the questionnaire administered, 513 representing about 98.7% return rate, were used for analysis. Mean, standard deviation and t-test were used to analyze the data. While mean was used to describe the data; standard deviation was used to determine how the responses of the respondents vary and t-test statistic was used to analyze data in order to ascertain the differences in suicide ideation between the two categories of students. A mean of 2.50 and above was regarded as potentially dangerous suicide ideation and a mean below 2.50 was regarded potentially not dangerous. All data analyses were done with IBM Statistical Package for Social Sciences (SPSS) Version 21.0 for Windows.

RESULTS

Table 1: Means, Standard Deviations and t-values of Suicide Ideation of Urban and Rural Secondary Schools Students

Variables	Total (N = 513)		Urban (N = 258)		Rural (N = 255)		t-value	p-value
	$\bar{x}$	SD	$\bar{x}$	SD	$\bar{x}$	SD		
A way of solving problems	2.45	0.31	2.41	0.34	2.49	0.26	3.253	0.001*
A way making others realize their worth	2.03	0.29	2.02	0.29	2.04	0.29	0.676	0.500
Intention is a wish	2.51	0.35	2.52	0.33	2.49	0.37	0.950	0.343
Because no one cared if lived or died	2.38	0.33	2.35	0.33	2.41	0.34	2.057	0.040*
Suicide is pain	2.04	0.39	2.01	0.39	2.07	0.39	1.605	0.109
Suicide as retribution	2.20	0.35	2.19	0.38	2.21	0.33	0.652	0.514
Suicide Ideation	2.27	0.21	2.15	0.21	2.29	0.22	1.881	0.060

* Significant at $p < 0.05$

Data in the above table show that overall the suicide ideation of the students is low and students in the rural area have a higher suicide ideation score than those in the urban area. However, students in the urban area have a higher suicide ideation score than those in the rural area in 'intention is a wish'. In all the scores, the standard deviations tend to suggest that the scores cluster narrowly around that central mean. When t-test is run, the differences are not significant in overall and specific suicide ideation expect 'suicide as a way of solving problems' and 'because no one cared if lived or died' where differences exist probably in favour of urban secondary school students.

DISCUSSION

In Nigeria, especially South East, suicide is a rare occurrence among secondary school students. That is why it is gratifying to note a low suicide ideation score among the students. Death through physiological effects of electric current is a painful one that may be the reasons why the students think less of committing suicide through electric shock. Most often in this part of the world any person who dies through electric shock especially at the transformer site is regarded as a criminal. The finding that the subjects in the present study had a low suicide ideation score tends to be at variance with those of the Department of Education (1997) which reported a high rate of suicide and parasuicide among secondary school students in the northern province of South Africa.

This study found that difference existed in suicide among the students in relation to location of residence with urban students having a lower ideation score than those living in the rural area. The no significant difference was a gratifying condition even though those living in the urban may be exposed to conditions that may put them at risk of suicide. The strongest risk factors for youth suicide are depression, substance abuse, aggressive or disruption behaviour, and previous suicide attempts (MacKay, Fingerhut, & Duran, 2000; Gould, Greenberg, Velting & Shaffer, 2003; Petronis, Samuels, Moscicki, & Anthony, 1990). It could be observed that the above psychological vices identified above are part of life in the urban areas; therefore suicide ideation of students living in the urban was expected to be significantly higher than those living in the rural area. The result of the present study calls for an intervention among students in the rural areas.

CONCLUSION

Suicide is one of the leading causes of death for young people in industrial and developing countries (Ackerman, 1993; Diekstra, 1993; Kebede, & Katsela, 1993). Suicides among youths are sources of significant and preventable loss of lives. It is evident from the results of the study that the students' suicide ideation threshold was low with those living in the urban area scoring lower than those living in the rural area. The implication of the finding is that the students may not be potentially at high risk of suicide. Health education intervention is required to prevent suicide among the population of the present student. The data used in the study was based on a self report inventory. Based on the deficiencies of survey research the findings of this study may not be used to make generalization in other population of students outside the area of present study.

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