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# Age, Gender, Stress and Self-Blame as Predictors of Suicidal-Ideation among Prison inmates in South East Nigeria

[1]OKEKE, Afamefuna Obiora, [2]EZEOKANA, Jude Obinna, [*3]ABAMARA, Nnaemeka Chukwudum

[1]Department of Psychological Medicine Ebonyi State University, Abakiliki, Ebonyi State, Nigeria.
[2&3]Department of Psychology, Nnamdi Azikiwe University, Awka Anambra State Nigeria.
[*3]Department of Mental-Health and Psychiatry, Kampala International University, Western Campus Ishaka Uganda.
Email:afam210@gmail.com, jo.ezeokana@unizik.edu.ng
Corresponding Author: abamaranc@kiu.ac.ug,nc.abamar@unizik.edu.ng

## Abstract

The study of suicidal ideation has been a source of major concern throughout the world. The study examined the role of demographic variables, stress and self-esteem as predictors of suicidal ideation among prison inmates in Anambra State. A cross-sectional survey design was adopted in the study. Simple randomization technique was used to select two hundred and forty-six (246) inmates from Nigerian Prisons in Anambra State. Perceived Stress Scale (P.S.S), Self-Blame Sub Scale (S.B.S.S) and Suicide Ideation Scale (S.I.S), were used to gather the data of the study with Cronbach's Alpha of .94 .91 and .97respectively.Three hypotheses were formulated and tested using multiple regression analysis. The results showed that demographic variables age, ($\beta$ = .27), and gender ($\beta$ = -.11) were significant predictors of suicidal ideation. Also, stress ($\beta$ = .33), and self-blame ($\beta$ = .41) significantly predicted suicidal ideation. Based on the findings of this study, it is recommended that Nigerian Prison Service should engage inmates into therapeutic programmes and clinical interventions that decrease self-blame and psycho-emotional development of coping ability to reduce ideation towards suicide.

*Keywords: Age, gender, prison inmates, self-blame, suicidal-Ideation.*

## Introduction

The psychological effect of being incarcerated takes an untold toll among prison inmates which is often characterized by withdrawal, despair, melancholy and deprivation (Awopetu, 2014). The combination of these effects plays a significant role in the psychological wellbeing of prison inmates. As such, prison inmates are more likely to contemplate suicide or be suicidal prone.

The Nigerian prison system has suffered a lot of negligence from successive government administration, panels have been set up to provide report and recommendations that have not been implemented by successive governments due to huge economic burdens, extensive administrative paperwork and socio-political reasons (Chukwu, 2014).This has led to extensive neglect, poor human and basic infrastructure within the prison system. Prison inmates are especially vulnerable to psychological and social encumbrances that often lead to issues surrounding suicidal and homicidal ideation (Awopetu, 2014).

Scientific literature has found link between gender differences and suicidal ideation. Most studies have indicated a profound increase of suicidal ideation in females most recently than their male counterpart (Youssef, et al., 2014). This assertion has global implications, in that in climes where suicidal ideation rate is prevalent, it is common to find more women than men who have been known to have engaged in suicidal ideation and even attempted suicide (Institute of Public Health, 2011). Some scientific literature has even posited that males are often more expected to die by

suicide than females and females have more tendency to engage in suicidal ideation or attempt suicide (Khan, Mustaffa, Hamdan& Ahmad, 2014). In a study by Olibamoyo, Ola. Coker, Adewuya and Obabola (2021) on trends and pattern of suicidal behaviour in Nigeria: Mixed-methods analysis of media report from 2016 to 2019. They found out that there are gender and age differences in the styles and pattern of suicidal behaviour in Nigeria. The result of the study reveals the need to buttress the suicide prevention strategy in Nigeria. If the strategy is successfully formed, risk reduction programme, such as target intervention to vulnerable groups such as young adults and female adolescents, prison inmates and restriction of access to suicide material can be implemented. There is no better way to do this than the passage of the mental health bill in Nigeria, which will provide a framework for these target intervention, and increase access to care for vulnerable individuals.

In terms of prison population, suicidal rates are recorded in both male and female inmates, with females having an increased number in recent years (Khan et al, 2014). The concept of self-blame has been investigated in social science literature for a reasonable time now, and researchers have linked self-blame to a myriad of psychological problems and allied behavioral dispositions. However, there are no generally accepted definition of self-blame, self-blame is generally conceived as a cognitive process in which an individual attributes the occurrence of a stressful event to one's self.

Strictly speaking, suicidal ideation means wanting to take your own life or thinking about suicide. However, there are two kinds of suicide ideation; passive and active. Passive suicidal ideation occurs when you could die, but you don't actually have any plans to commit suicide. Active suicidal ideation, on the other hand, is not only thinking about it but having the intent to commit suicide, including planning how to do it. Suicidal ideation is one of the symptoms of both major depression and the depression found in bipolar disorder, but it may also occur in people with other mental illness or no mental illness at all.

Theories of self-blame have often described individuals having to attribute self-blame to changeable or unchangeable situations or circumstances surrounding them. Some theorists assume that individuals tend to attribute event that occur to specific, controllable actions that emanated from the individual. (Roesch & Weiner, 2001). Krith, (2014) proposed that depression is caused by either attribution of negative events in environment and other individual causes, or other factors which are involved in mental processes like perceived low self-efficacy.
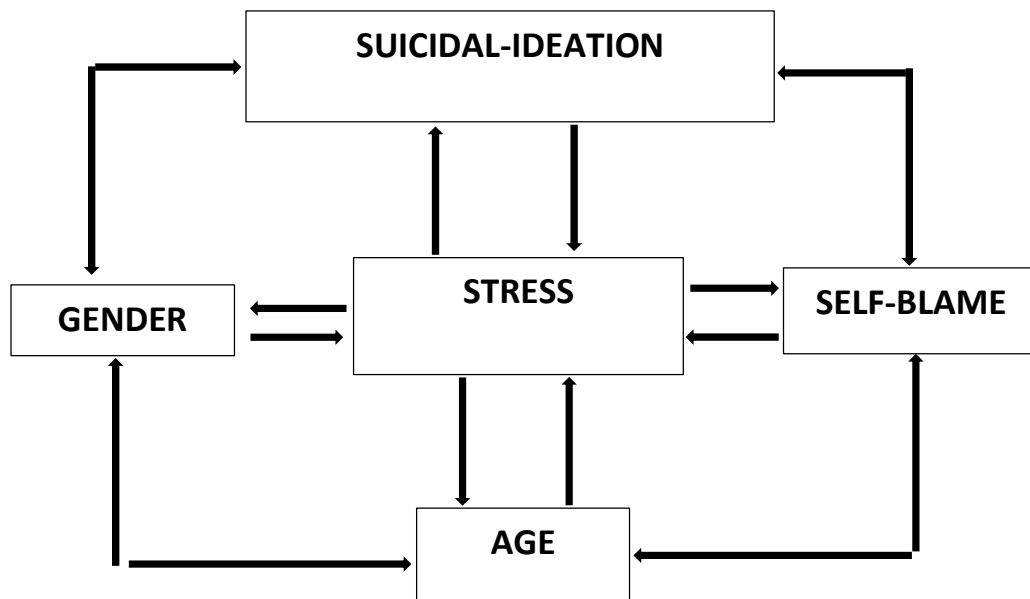
Stress is a feeling of emotional or physical tension. It can come from any event or thought that makes you feel frustrated, angry, or nervous. Stress is your body's reaction to a challenge or demand. In short bursts, stress can be positive, such as when it help you avoid danger or meet a deadline.

Gender refers to the economic, social, political and cultural attributes and opportunities associated with being women and men. The social definitions of what it means to be a woman or man vary among cultures and change over time. Gender is a sociocultural expression of particular characteristics and roles that are associated with certain groups of people with reference to their sex and sexuality.

Studies have demonstrated that there was a significant gender difference towards suicidal ideation among rural elderly in Shandong, China and the same is applicable to some communities in some communities in South East Nigeria. The common risk factors for suicidal ideation were educational level, debts, stress of daily life, loneliness and psychological distress in males and females. We also found that negative life events and life satisfaction were significantly correlated with suicidal ideation in females but not in males. Thus, gender difference should be considered when medical practitioners and public health workers seek to prevent and manage suicidal ideation among rural elderly and more attention should be paid to females who have encountered negative life event or had lower life satisfaction.

Age is the length of time during which a being or thing has existed; length of life or existence to the time spoken of or referred to in lives of human of things. It 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.

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                    ┌─────────────────────────┐
                    │    SUICIDAL-IDEATION     │
                    └─────────────────────────┘

┌─────────────┐      ┌──────────────┐      ┌──────────────┐
│   GENDER    │      │    STRESS    │      │  SELF-BLAME  │
└─────────────┘      └──────────────┘      └──────────────┘

                    ┌──────────────┐
                    │     AGE      │
                    └──────────────┘
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**Age, Gender, Stress, Self-blame interacted together to predict Suicidal-Ideation among prison In-mates in a correction centre.**

Source: Authors Construct (2021)

**Literature Review**

In a study by Ayodele and Ojo (2021), on suicide ideation and its correlates among University undergraduates in South Western Nigeria. They found out that suicide is one of the major causes of death among young people aged 15 to 29 year of age. Ideation or suicidal thoughts, which precedes suicide is sometimes normalized and excused thereby missing avertable death within a given context. Understanding

suicide ideation and the associated social correlates within a given context can provide cues on how to mitigate suicide.

In general, studies conducted in prison populations on suicidal ideation have established that, suicidal ideation is associated with collective factors emanating from psychological impact of prison systems) such as prison rape, prison torture and so on. A general dearth of longitudinal studies makes it difficult to demonstrate the direction of causality for the association between mental disorders and imprisonment. However, a narrative synthesis of qualitative studies from high-income countries suggests that most prison inmates perceive the prison environment as having a negative impact on their mental health (Goomany & Dickinson, 2015). An exceptional few highlight the opportunity to access health services as a benefit of imprisonment. However, a general paucity of physical and mental health services (lack of human resources, timely mental health assessment and psychotropic medications) and psychosocial interventions (limited rehabilitation, vocational, and community rehabilitation services) has been observed in prison studies across Africa (Loveth, Kwon, Kidia, Machando, Crooks, Fricchione *et al.* 2019).,

In a study of self-blame, anxiety and depression as determinants of suicidal ideation among tertiary students with recent history of abortion, Egwuonwu, and Olonade (2014), posited that depression, anxiety and self-blame are also independently predictive of suicide ideation among college students have important clinical implications for suicide assessment and prevention among students in tertiary

institutions. In a life stress and personality study with the population of 250 college students Joshi and Singh (2008) found out that suicidal ideation was significantly related to depression, traumatic events and extraversion and psychoticism. Brezo, Paris and Turecki (2006) did a systematic analysis of relationship among personality traits, suicide attempts, and suicide completions on suicidal ideation. Their findings that bottled up individual are more likely to engage in suicide than sociable or extroverted individuals. Brezo and colleagues, reported that hopelessness, neuroticism, and extroversion were mostly linked to increased risk screening and vulnerability to suicidal behavior.

In Nigeria a comprehensive knowledge of the full extent of burden of suicidal ideation among prison inmates maybe limited due to the paucityin systematic data collection and high-quality research and paucity of research infrastructure and funds for an extended period of time (Awopetu, 2014). Also, absence of updated death registers, a lack of expertise in suicide research, inadequate inter-African research collaboration, limited and outdated studies, a lack of standardized research designs and assessment are also considered as challenges and often implicated in studies of these magnitude (Kinyanda, Hjelmeland, Musisi, Kigozi & Walugembe, 2005).

With this, suicidal ideation in Africa is likely to be under-reported because of the aforementioned research and resource issues, the misclassification and undetermined reasons for accidental death and suicidal behavior in most of African countries still carries negative cultural sanctions which skew reports of its

occurrence, and such behavior still remains a crime and taboo in some countries, thereby encouraging perpetuation of non-reporting (Kinyanda et al., 2005; Omigbodun, Dogra, Esan &Adedokun, 2008; Ovuga, Boardman & Wassermann, 2005).

In a study on gender differences and psychological factors associated with suicidal ideation among youth in Malaysia by Norhayati, Norh and Hui (2017). They were of the opinion that female reported a higher tendency for suicidal thoughts and ideation compared to male adolescents, Groholt, Ekeberg, Wichstrom & Haldorsen (1999), which opposes the findings of this study. However, the latest findings in Malaysia showed that the level of suicidal ideation among male students is higher compared to female students, which is in agreement with this study.

In a study conducted by Bryce, Verdun-Jones & Adam (2020) on the relationship between age and suicidal thoughts and attempted suicide among prisoners. They found out that there is evidence to suggest that suicidal thoughts and behaviour may manifest differently for younger and older prisoners, with differing patterns of risk. There has been a marked lack of research which adopts an age-focused analysis of suicidality among prisoners, despite a growing body of literature suggesting (1) there are important differences in suicidal ideation and behaviour later as compared to earlier in the lifespan; (2) that rates of suicide-related deaths are highest among older adults (including prisoners), and; (3) the trend towards aging prison populations in high-income countries (Barry et al., 2017; O'Riley, 2016; Lutz et al.,

2016; O' Riley et al., 2014., Stanly et al., 2016). This was one of every few studies to investigate suicidal thoughts and behaviour among prisoners from perspective intended to increase insight into age-related patterns. Considering that late-life suicidal ideation and behaviour is expected to differ from suicidal ideation and behaviour earlier in the lifespan, along with findings from the present study which provide preliminary evidence to suggest that younger and older prisoners may exhibit differing patterns of suicidal risks.

Therefore, research in this area would be considered timely and appropriate as it will help provide a bridge to link the identified gaps in theory, methodology and procedure. In other words, this research study provides a platform for the potential management and understanding of suicidal ideation with psychological implications within prison communities. Using the available empirical evidence, there seems to be no research on stress and self-blame on suicidal ideation among prison inmates.

The following hypotheses were tested in the study:

1. Males will significantly predict suicidal ideation more than their female counterparts among prison inmates.

2. Age will significantly predict suicidal ideation among prison inmates.

3. Stress will significantly predict suicidal ideation among prison inmates.

4. Perceived self-blame will significantly predict suicidal ideation among prison inmates.

## Method

## Research Design

It is a survey study with a predictive design. Data collected was analyzed using Multiple Regression analysis. The Statistical Package for the Social Sciences 20 was used for the data analysis. In order to test the three hypothesis of the study.

## Population and Study Area

The participants were purposely selected from the Nigerian Prison Facility in Amawbia and the Nigerian Prison Facility in Onitsha. The location of the research setting was in Amawbia Prisons Service and Onitsha Prisons situated in Eastern Nigeria, Anambra State. The Nigerian Prisons Service, headquarters Amawbia, is located in Akwa South Local Government Area of Anambra State.

### Sampling Size and Sampling Technique

The participants for this study were selected using simple random sampling technique, two hundred and forty-six (246) inmates within the prisons in Anambra State volunteered for the study. Participants consist of both male and female prison inmates. Participants were drawn from male wards and females were drawn from females ward. The school premises within the prison yard served as the venue for questionnaire administration.

## Methods of Data collection and Instrument

Permission to conduct this research in the two prison yards was obtained from the Controller, Anambra Prisons (Correctional Services). When permission was granted, the researchers went to each of the prison yards with the questionnaires. The purpose of the study was explained to the prisoners and participants were assured that information provided will be treated confidential and no identifying information will be required and that questionnaires will be destroyed after the data has been analyzed. Prisoners were given consent forms to be filled before commencement of the study. Afterwards, questionnaires were shared with the help of research assistants and with a prison warden who introduced the research teams to different sections involved. The criterion for the inmate inclusion in the study was that the inmate must have attained secondary school education or above in order to respond to the questionnaires with little or no help. After the completion of the questionnaires, it was collected and subjected to data analysis. Three standardized self-report instruments were used for the study. They were; Perceived Stress Scale (PSS) developed by Cohen, Kamarck, &Mermelstein, (1983), Garnefki, Kraaij & Spinhoven (2002), Self-blame Sub Scale (SBSS) was used and Suicidal Ideation Scale (SIS) by Rudd (1989) were respectively used to collect relevant data.

Gender and age demographic information were gathered on the demographic section of the composite questionnaire in section A, and the other sections, B, C, and D respectively include; Perceived Stress Scale (PSS) is a 10-item instrument

developed by Cohen, et al., (1983) and developed to measure the degree at which individuals perceive their lives as stressful based on the DSM-IV benchmarks. Respondents rate each item from 0 = Never; 1 = Almost Never; 2 = Sometimes; 3 = fairly often; 4 = Very often to indicate how often individuals have found their lives unpredictable, uncontrollable, and overloaded in the last month. Scoring are of direct and reverse and the total perceived stress score is the addition of the reverse and direct item.

**Reliability and Validity of Research Instrument**

Cohen, et al (1983) established a validity coefficient of .78. The scale was revalidated by the researchers using 77 Nigeria prison inmates in Anambra state. The result of the reliability analysis showed a Cronbach Alpha of .94.

Self-blame Sub Scale (SBSS) of Cognitive Emotion Regulation Questionnaire developed by Garnefki, Kraaij and Spinhoven, (2002). The scale evaluates items referring to thought process in self-blame based on the individual's experience. The scale consists of a four (4) item self-blame Sub Scale adapted from The Cognitive Emotion Regulation Questionnaire by (Garnefki, et al., 2002). Items were measured on a 5-point Likert type scale ranging from 1 (strongly agree) to 5 (strongly disagree). The psychometric properties of Self-Blame Scale as revealed by Garnefki, et al., (2002), was a Cronbach's Alpha coefficients of .70. However, the SBSS was revalidated by the researchers using 77 Nigeria prison inmates in Anambra state. The result of the reliability analysis showed a Cronbach alpha of .91.

The Suicidal Ideation Scale (SIS) was designed by Rudd, (1989). The SIS is a 10-item scale measuring the severity of suicidal ideation in the participants. The scale was structured along a five-point Likert type scale, with responses ranging from "never" (scored as 1) to "always" (scored as 5). The SIS was scored such that, aggregated scores are calculated by summing the values of the responses. Possible full-scale scores ranges from a low 10 (indicating no suicidal ideation) to a high 50 (indicating a high level of suicidal ideation). Rudd (1989) reported a Cronbach Alpha of .86 and the SIS has been found to be correlated moderately with measures of depression ($r=.55$, $p<.001$) and hopelessness ($r=.49$, $p<.001$), providing evidence for its construct validity and has extensively been used in Nigeria. The researchers conducted a principal component analysis using 77 prison inmates of Nigeria prisons Anambra State Command and a Cronbach Alpha of .97 was obtained.

## Results Presentation and Analysis

**Table: Summary of Multiple Regression Analysis Showing the Contributions of Age, Gender, Stress, Self-blame on Suicidal Ideation**

| Variables | β | T | R | R² | Df | F |
|---|---|---|---|---|---|---|
| Age | .27 | .436** | | | | |
| Gender | -.11 | -.121 | .235 | .066 | 3, 246 | 4.43** |
| Stress | .33 | .430** | | | | |
| Self-Blame | .41 | .369** | | | | |

Note ** $p < 0.01$; N = 246

Results in Table 1.1 showed that age significantly predicted suicidal ideation ($\beta$ = .27; t = .43; p > 0.01). This means that age of prison inmates leads to increased tendency towards suicidal ideation. Therefore, hypothesis 1 was accepted. Gender showed significant inverse prediction on suicidal ideation ($\beta$ = -.11; t = -.21; p < 0.01), it implies that as male prison inmates' responses increases it leads to decreased tendency to engage in suicidal ideation in contrast to their female counterparts. Therefore, hypothesis 2 was confirmed.

Furthermore, perceived stress significantly predicted suicidal ideation among prison inmates, ($\beta$ = .33; t = .43; p < 0.01). This implies that as prison inmates perceived increase in stress so also those the tendency to engage in suicidal ideation increased. Also, perceived self-blame significantly predicted suicidal ideation among prison inmates, ($\beta$ = .41; t = .36; p < 0.01). This implies that as prison inmates' perception towards self-blame increased, so also the tendencies to engage in suicidal ideation increased.

On the contribution of all the independent variables (age, gender stress and self-blame) to the prediction of suicidal ideation, the outcome of the summary signifies that all the independent variables when pulled together yield a multiple R of .235 and $R^2$ of .066[F (3, 246) = 4.43, p < 0.01]. This is an indication that all the independent variables contributed 6.6% of the variance in suicidal ideation. Meanwhile, other variables not considered in this study therefore accounts for 93.4%.

## Conclusion and Policy Recommendation

The study examined the role of demographic variables of (age and gender), stress and self-blame as predictors of suicidal ideation among prison inmates in Anambra State, Nigeria. The result of the findings showed that age, stress and self-blame had significant predictive relationship and gender showed significant inverse prediction

with suicidal ideation among prison inmates. This therefore implies that the higher the age, stress and self-blame in prison inmates, the higher the tendency to engage in suicidal ideation. The reasons for this may be that as individual advances in age the greater the mental capacity to engage in thought processes that may lead to suicide ideation. Also, scientific literature has considered stress and self-blame are major predictors of suicidal ideation among prison inmates in developed societies. The findings support previous researches on stress which includes the reports that high stress is associated with increase in suicidal thoughts (Carpenter, Carpenter, Kimbrel, Flynn, Pennington, Cammarata, Zimering, et al, 2015).

One explanation for the positive prediction of stress on suicidal ideation can be explained by the fact that suicidal thoughts tend to have their origination from experience in recent stressful life events and that may increase the susceptibility to suicide ideation. Also, stress has been thought of as a feeling of strain and pressure and a small amount of stress may be desired, beneficial, and even healthy (Egwuonwu & Olonade, 2014). It also plays a factor in motivation, adaptation, and reaction to the environment. Excessive amounts of stress, however, may increase the risk of strokes, heart attacks, ulcers, and mental disorders such as depression or suicidal ideation (Centre for Disease Control and Prevention, 2013).

The findings of the study also indicated that self-blame significantly predicted suicidal ideation among prison inmates. One explanation for this finding could be that self-blame is a cognitive process that starts from the individual, who blames

himself or herself for the circumstances that they may be going through. For instance, prison inmates were convicted for crimes that have earlier committed may feel some sense of remorse or penitence that result into blaming self for their actions that led to their current predicament. Several studies have found similar results. For example, Graham & Juvonen (2008) suggested that individuals who engage in self-blame cognitions tend to show marked increase in suicidal thoughts often accompanied by cardiovascular diseases and substance abuse.

Suicidal ideation has been regarded as one of the most prominent challenges facing prison inmates in the last 20 years, in both developed and developing nations of the world. This study has established that stress, self-blame and openness to experience has significantly predicted suicidal ideation among prison inmates. This implies that in the understanding and management of suicidal ideation among prison populations it is imperative to consider both psychological and environment cues that makes prisoners vulnerable to suicidal ideation.

Based on the findings of the study, the researchers made policy recommendations, that situations and circumstances that may portend stressful outcomes should be reduced to barest minimum within the Nigerian Prison Service, by engaging the services of Social workers, Psychologists and Counsellors to teach and train prison inmate on coping skills and abilities. Also, the management of the Nigerian Prison Service should develop policies within the prison system that would help reduce the

occurrence of prison violence by organizing re-integration programs and skills acquisition schemes to help prison adjust to life after incarceration.

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