# THE LANGUAGE OF DEPRESSION AND SUICIDAL THOUGHTS AMONG NIGERIAN STUDENTS (A CASE STUDY OF UNIVERSITY OF PORT HARCOURT)

**ABSTRACT**

This study investigates the language of depression and suicidal thoughts among Nigerian students, focusing on how these emotions are expressed in written and spoken texts, and the role cultural and societal norms play in shaping these linguistic patterns. Using a mixed-method approach, the research was conducted at University of Port-Harcourt, where 392 students were initially sampled. After excluding incomplete responses, data from 325 participants were analysed. A structured questionnaire, guided by the Linguistic Inquiry and Word Count (LIWC) framework, was used to capture linguistic markers of depression and suicidal ideation. The findings revealed a high prevalence of depressive language among students, characterized by themes of isolation, hopelessness, and despair. Nearly 50% of respondents admitted to experiencing suicidal thoughts, with the majority feeling unable to seek help due to cultural stigmas surrounding mental health discussions. The analysis also demonstrated how linguistic features, such as the use of absolutist terms (e.g., "always" and "never") and negative emotion words, were prevalent in the expressions of students experiencing mental health challenges. The study contributes to the field by identifying specific linguistic markers that signal depression and suicidal ideation within the Nigerian cultural context. It also highlights the impact of societal norms on mental health expression, underscoring the need for culturally sensitive mental health interventions and policy reforms in Nigeria. Furthermore, the research offers practical applications of linguistic analysis in identifying at-risk individuals for early intervention. The study concludes with recommendations for expanding research to other institutions, employing advanced linguistic tools like Natural Language Processing (NLP), and developing culturally competent frameworks for addressing mental health issues in Nigeria. Key findings emphasize the importance of reducing stigma and providing supportive mental health services in Nigerian universities, where open dialogue and early intervention could significantly reduce the burden of depression and suicide among students.

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# CHAPTER ONE

# INTRODUCTION

**1.1 Background to the Study**

Depression and suicidal thoughts are increasingly recognized as significant public health concerns worldwide, affecting people of all ages, genders, and socioeconomic backgrounds. According to the World Health Organization (WHO), over 300 million people globally suffer from depression, making it a leading cause of disability. Furthermore, suicide is the second leading cause of death among individuals aged 15-29 (WHO, 2021). Depression is often characterized by persistent sadness, loss of interest in activities, and a wide range of cognitive and emotional disturbances. Suicidal thoughts, which are often linked to depression, represent a more severe mental health crisis and involve considerations or plans to end one's life (Rotenstein et al., 2016).

Language plays a crucial role in the manifestation of mental health conditions such as depression and suicidal ideation. Studies suggest that the way individuals express their emotions, whether verbally or in writing, can offer significant insights into their psychological state (Rude et al., 2004; Al-Mosaiwi & Johnstone, 2018). For instance, people experiencing depression tend to use more first-person singular pronouns (e.g., "I," "me"), signifying self-focused attention, while their language may also reflect feelings of hopelessness and helplessness (Pestian et al., 2020). In addition, those with suicidal ideation often display a higher frequency of absolutist language (e.g., "always," "never"), which indicates a more rigid and negative worldview (Al-Mosaiwi & Johnstone, 2018).

Over the past decade, linguistic analyses of mental health have increasingly turned to online and written forms of communication, such as blogs, social media posts, and academic writings (O’Dea et al., 2021). Researchers have found that by examining these forms of self-expression, they can predict the onset or intensity of depressive symptoms and suicidal ideation (Cummins et al., 2015). For example, studies utilizing computerized text analysis tools like the Linguistic Inquiry and Word Count (LIWC) have been effective in identifying linguistic markers of depression and suicide in written texts (Lumontod III, 2020; De Choudhury & Kiciman, 2017). These methods offer a non-invasive approach to understanding the mental states of individuals, allowing for early intervention and potentially saving lives.

In the Nigerian context, depression and suicidal thoughts among young people, particularly students, are becoming increasingly concerning. Nigeria, Africa's most populous nation, is experiencing a surge in mental health issues, with depression being one of the most commonly diagnosed conditions (Rotenstein et al., 2016). Various factors contribute to this rise, including economic instability, high levels of academic pressure, societal expectations, and a lack of sufficient mental health resources (Sierra et al., 2022). The situation is further exacerbated by the stigma surrounding mental health in Nigerian society, which discourages individuals from seeking help, leading to a high prevalence of untreated mental health disorders.

For Nigerian students, academic stress is one of the most prominent contributors to depression and suicidal ideation (Flores et al., 2020). The immense pressure to perform well in school, coupled with limited job opportunities and a highly competitive job market, often leads to feelings of despair and worthlessness. Furthermore, cultural expectations, especially from family members, can significantly compound these feelings, creating a sense of failure when students are unable to meet these expectations. The lack of mental health services in Nigerian universities further complicates the situation, leaving many students to cope with their depression and suicidal thoughts in silence.

The language students use to express their emotions can provide critical clues about their mental health status. A growing body of research suggests that students experiencing depression or suicidal thoughts use language that reflects their emotional distress (Li et al., 2023). For instance, their writings may include expressions of hopelessness, isolation, and extreme distress. Studies have also shown that the more negative and absolute the language, the greater the likelihood that the individual is experiencing suicidal ideation (Al-Mosaiwi & Johnstone, 2018). Identifying these linguistic markers in Nigerian students' writings could provide a valuable tool for early intervention, allowing for timely mental health support and potentially reducing suicide rates among this vulnerable population.

In sum, the language of depression and suicidal thoughts among Nigerian students is an under-explored area that warrants further investigation. Given the increasing prevalence of mental health challenges among this group and the potential for language analysis to offer insights into their psychological states, this study aims to explore the specific linguistic patterns used by Nigerian students who experience depression and suicidal ideation. By understanding these patterns, the study hopes to contribute to the broader field of linguistic psychology and provide a foundation for developing effective mental health interventions tailored to the Nigerian context.

**1.2 Statement of the Problem**

Despite the growing recognition of mental health issues among young people globally, there is a significant gap in the literature regarding depression and suicidal thoughts among Nigerian students. Mental health issues are often under-reported in Nigeria due to societal stigma and the lack of accessible mental health services (Rotenstein et al., 2016). This under-reporting makes it challenging to provide adequate care and intervention for affected individuals. Furthermore, while studies in Western countries have identified specific linguistic markers of depression and suicidal thoughts (Rude et al., 2004; Homan et al., 2022), little is known about the language patterns used by Nigerian students experiencing these conditions.

This gap in knowledge limits the ability of mental health professionals, educators, and policy-makers to address the unique needs of Nigerian students. Given the rising rates of depression and suicide among this group, there is an urgent need for research that explores how these students express their mental health struggles. Understanding the linguistic expressions associated with depression and suicidal ideation could provide a non-invasive means of identifying at-risk students and facilitating early intervention. This study seeks to address this gap by analysing the language of Nigerian students and identifying the linguistic markers of depression and suicidal thoughts in their writings.

**1.3 Research Questions**

1. What are the key linguistic markers of depression and suicidal thoughts in the written and spoken expressions of Nigerian students?
2. How does the language of Nigerian students reflect their emotional and psychological state when experiencing depression and suicidal thoughts?
3. To what extent does cultural context influence the language used by Nigerian students in expressing their mental health challenges?
4. Can linguistic analysis be used as an early intervention tool to identify students at risk of depression and suicidal ideation in Nigerian universities?

**1.4 Aims and Objectives**

1. To identify the linguistic markers of depression and suicidal thoughts in the writings of Nigerian students.
2. To examine the relationship between linguistic expression and emotional distress among Nigerian students.
3. To explore how cultural factors influence the language of mental health in Nigeria.
4. To assess the potential of using linguistic analysis as an early intervention tool for identifying at-risk students.

**1.5 Significance of the Study**

This study is significant for several reasons. First, it addresses a critical gap in the existing literature by focusing on the language of depression and suicidal thoughts among Nigerian students. Most research in this field has been conducted in Western contexts, and little is known about how mental health is expressed linguistically in Nigeria. By focusing on Nigerian students, this study will contribute to a more nuanced understanding of the intersection between language, culture, and mental health in non-Western settings.

Second, the study has practical implications for mental health interventions in Nigerian universities. By identifying specific linguistic markers associated with depression and suicidal thoughts, the findings could help educators, counsellors, and mental health professionals identify at-risk students earlier and provide timely support. This could ultimately lead to a reduction in suicide rates among Nigerian students.

Finally, the study’s insights into the language of depression and suicidal thoughts could inform public health policies and educational programs aimed at reducing the stigma surrounding mental health in Nigeria. Understanding how students express their struggles may also help to develop more effective communication strategies for mental health campaigns.

**1.6 Scope of the Study**

This study focuses on the linguistic analysis of depression and suicidal thoughts among university students in Nigeria. The study will examine written and spoken texts produced by Nigerian students, including academic essays, social media posts, and personal diaries, to identify linguistic markers associated with depression and suicidal ideation. While the primary focus will be on students in higher education, the findings may have broader implications for understanding mental health in other Nigerian youth populations.

**1.7 Definition of Key Terms**

**Depression:** A mental health disorder characterized by persistent feelings of sadness, loss of interest in activities, and cognitive disturbances that impair daily functioning.

Suicidal Ideation: Thoughts or considerations of self-harm or suicide, often associated with feelings of hopelessness and despair.

**Linguistic Markers:** Specific language features, such as word choice, tone, and sentence structure, that may indicate an individual’s mental or emotional state.

**Mental Health:** The psychological and emotional well-being of an individual, which can be influenced by various factors, including life events, stress, and biological conditions.

**Cultural Context:** The set of social, religious, and familial norms and values that influence an individual’s behaviour, beliefs, and expressions, particularly in relation to mental health.

# CHAPTER TWO

# LITERATURE REVIEW

**2.1 Introduction**

Mental health concerns, particularly depression and suicidal ideation, have garnered increasing attention due to their rising prevalence among young people globally. Depression, characterized by persistent sadness, feelings of worthlessness, and loss of interest in daily activities, has become a leading cause of disability worldwide, especially among students (O’Dea et al., 2021). Suicidal thoughts, a severe manifestation of depression, can range from fleeting thoughts of death to well-defined plans for suicide (De Man & Leduc, 1995). In Nigeria, mental health challenges among students are under-researched, despite mounting anecdotal evidence and reports highlighting the growing incidence of depression and suicide in tertiary institutions.

One under-explored area in mental health research is how students express their mental states through language. The language of depression and suicidal ideation reflects the inner cognitive and emotional struggles of those affected. It is characterized by specific patterns, such as the frequent use of negative emotional words, absolutist language (words like “always” and “never”), and reduced use of first-person pronouns, signalling isolation and hopelessness (Al-Mosaiwi & Johnstone, 2018). As Nigerian students navigate the academic, social, and economic pressures endemic in higher education, there is a critical need to investigate how they communicate their mental health challenges, particularly in online spaces and informal conversations. This chapter delves into the linguistic markers of depression and suicidal thoughts, laying the foundation for understanding how language can serve as a diagnostic and therapeutic tool in mental health care for Nigerian students.

**2.2 Theoretical Framework**

Theoretical frameworks are essential in shaping the lens through which research is conducted, guiding the interpretation of data and shaping the methodology used in any study. In exploring the language of depression and suicidal thoughts among Nigerian students, this research draws from several theoretical perspectives. These include Cognitive Behavioral Theory (CBT), the Theory of Planned Behavior (TPB), Psycholinguistic Theory, and Natural Language Processing (NLP) in Mental Health Diagnostics. Each of these theories offers unique insights into the relationship between language and mental health, helping to explain how language can both reflect and influence depressive and suicidal ideation.

**2.2.1 Cognitive Behavioral Theory (CBT)**

Cognitive Behavioral Theory (CBT) is one of the most influential psychological models used to understand and treat depression and suicidal ideation. According to CBT, thoughts, emotions, and behaviors are interlinked, with distorted or maladaptive thinking patterns contributing to emotional distress and problematic behaviors (Beck, 1976). The theory posits that individuals suffering from depression or suicidal thoughts often exhibit cognitive distortions, such as overgeneralization, catastrophizing, or dichotomous thinking. These distorted thought patterns are reflected in their language use, providing a basis for the linguistic analysis of depression and suicidal ideation.

One key linguistic feature of depression, according to CBT, is the pervasive use of negative emotion words. Individuals with depression tend to focus on negative events or emotions, and this focus manifests in their speech and writing (Rude et al., 2004). Additionally, CBT suggests that individuals with depression are prone to overgeneralization, often using absolutist terms like "always," "never," or "nothing." These words reflect the cognitive rigidity typical of depression, wherein individuals perceive their situations as hopeless and unchangeable (Al-Mosaiwi & Johnstone, 2018).

CBT also emphasizes self-referential language as an indicator of depression. Depressed individuals often exhibit a heightened focus on the self, using first-person singular pronouns like "I," "me," and "my" more frequently than non-depressed individuals. This self-focused attention is often accompanied by feelings of worthlessness and isolation, which are central to depressive cognition (Rude et al., 2004). By analyzing these linguistic markers, CBT offers a theoretical foundation for understanding how language reveals the cognitive patterns of those experiencing depression and suicidal ideation.

In the context of Nigerian students, the use of self-referential language and negative emotion words may be particularly revealing. Academic pressures, financial struggles, and societal expectations are common stressors that could contribute to these cognitive distortions. Furthermore, cultural factors such as the stigmatization of mental health issues may exacerbate these thought patterns, leading students to internalize their distress rather than seeking help.

**2.2.2 Theory of Planned Behavior (TPB)**

The Theory of Planned Behavior (TPB), developed by Ajzen (1991), offers another valuable framework for understanding the language of depression and suicidal thoughts. TPB is primarily a social-cognitive model that explains how an individual's attitudes, subjective norms, and perceived behavioral control influence their intentions and behaviors. While TPB is often applied to behaviors like smoking cessation or exercise, it is also relevant to mental health, particularly in understanding how attitudes toward depression and suicide influence the expression of suicidal ideation.

According to TPB, individuals' attitudes toward depression and suicide are shaped by personal beliefs, societal norms, and perceived stigma. In many cultures, including Nigeria, mental health is a stigmatized topic, and individuals may be reluctant to openly express depressive symptoms or suicidal thoughts due to fear of judgment or ostracization (Flores et al., 2020). This reluctance is reflected in their language, where individuals may avoid explicitly mentioning their mental health struggles and instead use indirect or metaphorical language to describe their feelings (Padmanathan et al., 2019).

TPB also highlights the role of perceived behavioral control in shaping how individuals communicate their mental health challenges. In Nigeria, where mental health services are limited and societal support for individuals with depression is often inadequate, students may feel that they have little control over their mental health outcomes. This sense of helplessness and hopelessness is reflected in the language of individuals with depression, who may frequently use terms that suggest a lack of agency, such as "I can't," "There's nothing I can do," or "It’s always going to be this way" (O’Dea et al., 2021). These expressions indicate not only the presence of depressive cognition but also a lack of perceived control over one’s mental health, a central concept in TPB.

Furthermore, subjective norms, or the perceived expectations of others, also influence language use. In collectivist cultures like Nigeria, societal expectations and familial obligations are deeply ingrained in individuals' self-concept. As a result, Nigerian students experiencing depression or suicidal thoughts may frame their distress in terms of their relationships with others, using language that reflects guilt, shame, or a sense of having failed to meet expectations (Li et al., 2023). The use of such language is consistent with TPB’s emphasis on the role of societal pressures in shaping behavior and attitudes.

**2.2.3 Psycholinguistic Theory**

Psycholinguistics, the study of how language and psychological processes are intertwined, provides a theoretical lens through which to analyze the language of depression and suicidal thoughts. This theory posits that language is not merely a vehicle for communication but also a reflection of cognitive processes, including those involved in emotional regulation and mental health. Psycholinguistic theory offers insights into how individuals with depression or suicidal ideation use language to express their internal states, often without being consciously aware of the linguistic patterns they are employing. One of the key contributions of psycholinguistic theory is the concept of "cognitive load" in language production. Depressed individuals often experience cognitive impairments, such as difficulty concentrating or making decisions. This cognitive load is reflected in their language, which may become more fragmented, disjointed, or simplistic (Pestian et al., 2020). For instance, individuals with severe depression may use shorter sentences, less complex vocabulary, and fewer conjunctions, indicating cognitive strain (Cummins et al., 2015). These linguistic markers are particularly relevant when analyzing the writings of Nigerian students, as academic stress may exacerbate cognitive load, making it more difficult for students to articulate their thoughts coherently.

Another important aspect of psycholinguistic theory is the role of metaphorical language. Depressed individuals often struggle to describe their emotional experiences directly, leading them to use metaphors or symbolic language to communicate their feelings (Padmanathan et al., 2019). For example, phrases like "I'm drowning," "I'm in a dark hole," or "I feel numb" are common in the language of individuals with depression and suicidal ideation. These metaphors serve as cognitive shortcuts, allowing individuals to convey complex emotional states in a way that is easier for them to articulate. In Nigeria, where direct discussions of mental health may be culturally taboo, metaphorical language may be even more prevalent as a means of expressing distress indirectly.

Psycholinguistic theory also provides a framework for understanding how cultural context influences language use. In Nigeria, where multiple languages are spoken and cultural norms vary widely, the way individuals express their mental health challenges may differ significantly based on their linguistic and cultural backgrounds (Homan et al., 2022). For example, in some Nigerian cultures, there may be no direct translations for terms like "depression" or "anxiety," leading individuals to use euphemisms or culturally specific metaphors to describe their experiences. Understanding these cultural nuances is critical for accurately interpreting the language of depression and suicidal thoughts among Nigerian students.

**2.2.4 Natural Language Processing (NLP) in Mental Health Diagnostics**

Natural Language Processing (NLP) is a computational approach to analyzing language data that has gained increasing prominence in mental health research. NLP allows researchers to analyze large datasets of text, such as social media posts, clinical notes, or personal writings, to identify linguistic patterns associated with depression and suicidal ideation (Pestian et al., 2020). NLP provides a theoretical and methodological framework for understanding how language reflects mental health states and offers practical applications for diagnosing and predicting mental health outcomes.

One of the primary uses of NLP in mental health is the automatic detection of linguistic markers of depression, such as the use of negative emotion words, self-referential language, and absolutist terms (Homan et al., 2022). By training machine learning algorithms on large datasets of text from individuals with known mental health conditions, researchers can develop models that predict depression or suicidal ideation based on linguistic features. These models have been used to analyze social media platforms, such as Twitter or Reddit, where individuals often express their mental health struggles in real-time (O’Dea et al., 2016). For Nigerian students, who are active users of social media, NLP tools could provide a means of identifying at-risk individuals based on their language use, allowing for early intervention and support.

In addition to detecting linguistic markers of depression, NLP can also be used to analyze the emotional tone of language. Sentiment analysis, a technique used in NLP, measures the emotional valence of words, categorizing them as positive, negative, or neutral. Studies have shown that individuals with depression or suicidal thoughts tend to use more negatively valenced words and fewer positive ones, reflecting their emotional state (Cummins et al., 2015). Sentiment analysis can be applied to various forms of communication, including text messages, emails, and social media posts, to assess the mental health of individuals in real-time. Furthermore, NLP can help identify changes in linguistic patterns over time. For instance, a sudden shift from using emotionally charged language to more detached or neutral language may indicate an increased risk of suicide (Leavitt et al., 2021). This type of analysis is particularly valuable in high-risk populations, such as university students, who may experience sudden emotional crises due to academic pressures or personal challenges.

**2.3 Conceptual Framework**

Language is not only a medium for communication but also a reflection of one's internal psychological state. This is particularly evident in the language of individuals suffering from depression and suicidal ideation. Various linguistic features have been identified as indicators of these mental health conditions. In exploring the relationship between language and mental health, it is essential to first define key concepts: depression, suicidal ideation, and linguistic markers.

**2.3.1 Defining Depression and Suicidal Ideation**

Depression is a mood disorder that significantly impairs a person's ability to function in daily life. It is characterized by feelings of sadness, hopelessness, and a lack of energy or motivation (Rotenstein et al., 2016). Suicidal ideation refers to thoughts about ending one’s life, ranging from fleeting considerations to detailed plans (De Man & Leduc, 1995). Among students, these mental health challenges are often compounded by academic pressures, financial stress, and social isolation, contributing to an increased risk of both depression and suicide (Flores et al., 2020).

In the context of Nigerian students, depression and suicidal thoughts may manifest differently due to cultural and societal factors. Nigeria’s collectivist culture, where family and societal expectations play a significant role, often stigmatizes mental illness, making it difficult for individuals to express their mental health struggles openly (Homan et al., 2022). Consequently, the way Nigerian students communicate their mental health issues, especially through language, becomes a critical area of study.

**2.3.2 Linguistic Markers of Depression**

Language provides a window into the cognitive and emotional states of individuals. Research has shown that certain linguistic patterns are closely associated with depression. Depressed individuals tend to use more negative emotion words, such as "sad," "miserable," and "hopeless," and fewer positive emotion words (Rude et al., 2004). Additionally, absolutist words like "always," "never," and "completely" are more prevalent in the language of those experiencing depression and suicidal thoughts (Al-Mosaiwi & Johnstone, 2018). These words reflect a cognitive distortion known as "all-or-nothing thinking," which is a hallmark of depressive disorders.

Moreover, depressed individuals tend to use more self-referential language, indicated by an increased frequency of first-person singular pronouns (e.g., "I," "me," "my"). This suggests a heightened focus on the self, often accompanied by feelings of isolation and worthlessness (Rude et al., 2004). These linguistic markers can be identified in written texts such as blogs, social media posts, and even academic writings, providing insights into the mental health of individuals, including students.

In Nigeria, where mental health issues are often stigmatized, students may be reluctant to explicitly verbalize their depressive symptoms or suicidal thoughts. However, their language, particularly in online forums or personal writings, may reveal underlying mental health struggles. Studies have shown that individuals experiencing depression or suicidal ideation often turn to social media platforms as outlets for expressing their emotions (De Choudhury & Kiciman, 2017). Nigerian students, who are active users of social media, may similarly use these platforms to communicate their mental states indirectly, through their choice of words and phrases.

**2.3.3 Linguistic Markers of Suicidal Ideation**

Linguistic markers of suicidal ideation share some similarities with those of depression but also exhibit distinct features. One notable difference is the frequent use of death-related words (e.g., "die," "death," "kill") in the language of individuals with suicidal thoughts (Padmanathan et al., 2019). Additionally, studies have found that individuals contemplating suicide tend to use less emotionally charged language in their final communications, such as suicide notes, than those writing about depression or other negative emotions (Leavitt et al., 2021). This phenomenon, sometimes referred to as "paradoxical positivity," suggests that individuals close to suicide may feel a sense of emotional detachment or resolution regarding their decision. In a study of social media posts, O’Dea et al. (2016) identified that individuals expressing suicidal thoughts often employed a distinctive linguistic style, characterized by short, direct statements and an absence of emotional depth. This contrasts with the more elaborate, emotionally expressive language seen in posts about depression. These linguistic patterns can be useful in identifying individuals at risk of suicide, particularly in online spaces where distressed individuals may seek solace or support (Homan et al., 2022).

**2.3.4 The Role of NLP and Machine Learning in Linguistic Analysis**

Recent advancements in Natural Language Processing (NLP) and machine learning have made it possible to analyze large volumes of text for linguistic markers of depression and suicidal ideation. NLP tools such as the Linguistic Inquiry and Word Count (LIWC) software have been widely used to examine the emotional and cognitive aspects of language in mental health contexts (Pestian et al., 2020). These tools can automatically detect patterns in language use, such as the frequency of emotion words, pronouns, and other relevant features. Machine learning models have also been developed to predict suicidal ideation based on language use. For example, a study by Li et al. (2023) applied machine learning techniques to clinical interviews and social media posts to identify linguistic features associated with suicidal thoughts. Such tools hold promise for mental health professionals seeking to identify at-risk individuals based on their language, particularly in environments like universities, where students may be reluctant to seek help directly.

In Nigeria, where the mental health infrastructure is underdeveloped, these technologies could play a crucial role in early detection and intervention. By analyzing the language used by students in written or spoken communication, it may be possible to identify those at risk of depression or suicide and provide them with the necessary support.

**2.3.5 Language and Culture**

Language is deeply influenced by cultural context, and this is especially true when it comes to mental health expression. In Nigeria, where multiple languages are spoken, the way depression and suicidal thoughts are communicated may vary significantly depending on the language and cultural background of the individual. For example, certain Nigerian languages may lack direct translations for terms related to mental health, leading individuals to use metaphorical language or euphemisms to describe their feelings (Homan et al., 2022). Understanding these cultural nuances is essential for accurately interpreting the language of depression and suicidal ideation among Nigerian students. In addition, societal stigma surrounding mental illness in Nigeria may cause students to avoid discussing their mental health explicitly, further complicating efforts to identify those in need of support.

**2.4 Empirical Review**

The empirical review examines research studies that provide evidence on the language of depression and suicidal thoughts, focusing on how this is expressed among various populations, particularly students. For this section, 20 studies are reviewed, ranging from those focused on linguistic analysis to mental health prevalence and intervention strategies. These studies are divided into thematic categories, exploring the language of depression, the role of social media, cultural considerations, and intervention outcomes.

**2.4.1 Linguistic Patterns in Depression and Suicidal Thoughts**

Rude, Gortner, and Pennebaker (2004) conducted a pioneering study on how individuals with depression use language. The study analyzed essays written by depressed individuals and found increased use of first-person pronouns (e.g., "I," "me," "my"), signaling self-focus, and fewer positive emotion words. These linguistic markers are relevant in identifying depressive symptoms in written language.

Al-Mosaiwi and Johnstone (2018) focused on absolutist thinking in the language of depression. Their study found that individuals with depression were more likely to use absolute terms like "always," "never," or "nothing." This linguistic rigidity reflects a cognitive distortion common in depressive thinking, which can be observed in Nigerian students' language as well.

Holtzman et al. (2017) analyzed social media posts of individuals with depression, confirming that negative emotional words were more frequent. The study highlights the importance of online language as an indicator of mental health status. For Nigerian students, who frequently express themselves on platforms like Twitter and Instagram, similar linguistic patterns could signal distress.

Campbell and Pennebaker (2003) also examined the linguistic markers of depression, particularly self-referential and negative emotion words, and confirmed their prevalence in depressive discourse. The study underpins the theoretical framework of using language as a diagnostic tool.

**2.4.2 Social Media and Digital Platforms in Detecting Mental Health Issues**

O'Dea et al. (2016) explored the role of social media in identifying mental health issues among adolescents. The study used Natural Language Processing (NLP) tools to detect signs of depression and suicidal ideation from social media posts. This research highlights the relevance of digital platforms in capturing the mental health struggles of Nigerian students, who are increasingly active on social media.

Coppersmith et al. (2014) analyzed Twitter posts and found that users with a history of depression frequently used self-referential and negative emotion words. This type of study is crucial for understanding how Nigerian students may inadvertently reveal their mental health struggles in their online communication.

Chancellor et al. (2016) focused on Instagram, analyzing posts related to depression and suicide. The study found that images and accompanying captions containing metaphorical language and imagery often signaled mental health distress. Nigerian students, who use visual platforms like Instagram, may similarly express their struggles through this mix of visual and textual language.

**2.4.3 Cultural and Contextual Considerations in Mental Health Language**

Padmanathan et al. (2019) examined how language and culture influence the expression of suicidal thoughts in different cultural contexts, including sub-Saharan Africa. The study found that individuals in these regions often used indirect or metaphorical language to discuss suicide due to societal stigmas. This is particularly relevant to Nigerian students, where cultural factors may prevent open discussion of mental health issues.

Flores et al. (2020) studied the cultural barriers to expressing depression and suicide in collectivist societies, emphasizing the role of shame and family expectations. In Nigerian culture, where family and societal expectations are paramount, students may adopt culturally specific metaphors or avoid explicit discussions of mental health, instead couching their distress in other terms.

Wong et al. (2014) explored how Asian cultures express suicidal ideation through language, noting that indirect expressions and euphemisms were more common due to cultural stigma. This study parallels the situation in Nigeria, where similar stigma exists and affects how mental health is communicated.

Mendenhall et al. (2014) studied depression in low-resource settings like sub-Saharan Africa, finding that individuals often lack the language to discuss mental health due to limited awareness or cultural factors. This highlights the need to consider how Nigerian students might face similar challenges in articulating their mental health struggles.

**2.4.4 Mental Health Prevalence and Language Patterns in Nigerian Students**

Peltzer et al. (2013) conducted a large-scale study on depression and suicidal ideation among Nigerian university students. The study found that high levels of academic stress, financial difficulties, and societal expectations contributed to mental health issues, which were often expressed in self-deprecating language and hopelessness.

Adewuya et al. (2006) focused on the prevalence of suicidal ideation among Nigerian students and how they discussed these thoughts. The study identified a tendency to use euphemisms and indirect language, likely due to cultural stigma surrounding suicide, making it difficult for students to seek help.

Ibrahim et al. (2013) explored the relationship between depression and academic performance in Nigerian universities. The study found that students struggling with mental health issues often used negative, defeatist language when discussing their academic work, reflecting feelings of inadequacy and despair.

Gureje et al. (2010) conducted a study on mental health in Nigeria, finding that depression was underdiagnosed and undertreated. The study highlighted the need for more research on how Nigerian individuals express their mental health challenges, particularly through language, to improve diagnostic accuracy.

**2.4.5 Psycholinguistic Studies and Natural Language Processing (NLP) in Mental Health**

Pestian et al. (2020) employed NLP techniques to analyze the language of suicidal patients. Their study showed that NLP tools could accurately detect linguistic markers of suicidal ideation, such as expressions of hopelessness and negative self-evaluation. This is a promising approach for analyzing the language of Nigerian students and identifying those at risk.

Cummins et al. (2015) used machine learning models to detect depression from text. Their study revealed that individuals with depression used simpler sentence structures and fewer conjunctions, reflecting cognitive load. This finding can be applied to the academic writings and social media posts of Nigerian students, where similar linguistic patterns might emerge under stress.

Leavitt et al. (2021) focused on shifts in linguistic patterns preceding suicide attempts, noting a move from emotional language to more detached, neutral terms. This type of analysis could help identify Nigerian students who are at increased risk of suicide by monitoring changes in their language use over time.

**2.4.6 Mental Health Interventions and Linguistic Approaches**

Homan et al. (2022) investigated the effectiveness of linguistic interventions for individuals with depression. The study used CBT-based language interventions to challenge negative thought patterns, finding significant improvements in mental health outcomes. This suggests that addressing the language of depression among Nigerian students could be an effective intervention strategy.

Padmanathan et al. (2019) explored how linguistic interventions could be adapted for culturally specific contexts. The study emphasized the importance of using culturally sensitive language when designing mental health interventions, particularly in regions like Nigeria where direct discussions of mental health are often stigmatized.

**2.5 Gaps in the Literature**

Despite the growing body of research on the language of depression and suicidal thoughts, there remain several notable gaps, particularly in relation to Nigerian students and their specific sociocultural context. These gaps are critical in understanding the full scope of mental health issues and how they are expressed linguistically in this population.

Limited Focus on African Populations: Much of the existing research, including studies by Rude, Gortner, and Pennebaker (2004) and Al-Mosaiwi and Johnstone (2018), has been conducted in Western or developed countries. Few studies explore the unique linguistic and cultural expressions of mental health issues in sub-Saharan Africa, particularly in Nigeria. Given the significant cultural, linguistic, and socioeconomic differences, more research is needed to understand how Nigerian students express depression and suicidal thoughts.

Insufficient Integration of Cultural Context: Several studies (e.g., Flores et al., 2020; Wong et al., 2014) highlight the influence of culture on mental health expression. However, most fail to adequately address the specific cultural nuances that may affect how Nigerian students express mental health challenges. Cultural norms in Nigeria often stigmatize discussions of mental health, which may push students to use indirect language or metaphors. There is a gap in understanding how these cultural factors shape linguistic patterns in depression and suicidal ideation among Nigerian students.

Lack of Longitudinal Studies: Existing studies, such as O'Dea et al. (2016) and Pestian et al. (2020), often rely on cross-sectional data, examining mental health at a single point in time. Longitudinal research that tracks changes in language over time, particularly among Nigerian students, is scarce. Understanding how linguistic expressions of depression evolve over time could provide valuable insights into early detection and prevention.

Inadequate Use of Local Languages: Most linguistic studies on depression, including those by Cummins et al. (2015) and Holtzman et al. (2017), are based on English, even in non-English-speaking countries. In Nigeria, students may express themselves in indigenous languages, dialects, or pidgin English, which are not captured in most existing research. There is a significant gap in the study of how local languages influence the expression of mental health challenges, particularly in a multilingual society like Nigeria.

Limited Use of Advanced Technologies: While recent studies (e.g., Leavitt et al., 2021; Rabani et al., 2023) have explored the use of NLP and machine learning to detect suicidal ideation from text, such technologies are rarely applied in Nigerian contexts. More research is needed to tailor these tools to detect depression and suicidal thoughts among Nigerian students, incorporating local languages and cultural nuances.

Underrepresentation of Gender-Specific Issues: Few studies explore the gender differences in how male and female students express depression and suicidal ideation. Given the patriarchal context in Nigeria, male students may be less likely to express vulnerability, while female students may face different societal pressures, influencing how they articulate mental health challenges. This represents a gap in understanding gendered expressions of depression and suicidal thoughts.

Overemphasis on Digital Platforms: Although studies like those by Coppersmith et al. (2014) and Chancellor et al. (2016) focus on social media platforms as spaces for mental health expression, many Nigerian students, especially in rural areas, may not have the same level of access to these platforms. There is a gap in understanding how offline language, such as conversations with peers or family, reflects depression and suicidal thoughts among Nigerian students.

**2.6 Summary of Literature**

The literature on the language of depression and suicidal thoughts has evolved significantly over the past two decades, providing valuable insights into the linguistic markers associated with mental health challenges. Key findings suggest that individuals with depression often use language that reflects self-focus, negative emotional states, and cognitive distortions, as demonstrated by studies like those of Rude, Gortner, and Pennebaker (2004). Additionally, Al-Mosaiwi and Johnstone (2018) identified absolutist language as a specific marker of depression and suicidal ideation, furthering our understanding of how mental health issues manifest linguistically.

Research also shows that social media has become an important platform for detecting mental health issues. Studies like O'Dea et al. (2016) and Coppersmith et al. (2014) have demonstrated how digital platforms can reveal patterns of language indicative of depression and suicidal ideation. This has important implications for detecting mental health challenges among Nigerian students, who are increasingly active on social media.

Cultural factors play a crucial role in shaping how mental health is expressed. Studies such as those by Padmanathan et al. (2019) and Flores et al. (2020) have shown that individuals in collectivist societies often avoid direct language related to depression and suicide due to societal stigmas. This is particularly relevant for Nigerian students, where cultural and religious norms may inhibit open discussions about mental health.

Furthermore, empirical research has consistently highlighted the prevalence of depression and suicidal ideation among university students, with studies like Peltzer et al. (2013) and Adewuya et al. (2006) revealing high levels of mental health challenges in Nigerian universities. These challenges are often expressed in indirect language, reflecting cultural stigmas and the lack of mental health resources.

However, significant gaps remain in the literature, particularly concerning the linguistic expressions of mental health issues among Nigerian students. Many studies have been conducted in Western contexts, with little focus on African populations. Additionally, there is a lack of research on how local languages and cultural factors influence the expression of depression and suicidal thoughts among Nigerian students. More longitudinal research is needed to track changes in language over time, and advanced technologies like NLP and machine learning must be tailored to the Nigerian context to improve detection and intervention strategies.

In summary, the literature provides a strong foundation for understanding the language of depression and suicidal thoughts. However, more culturally relevant research is needed to address the unique challenges faced by Nigerian students and to develop effective, context-specific interventions.

# CHAPTER THREE

# METHODOLOGY

**3.1 Research Design**

This study adopts a mixed-methods research design, combining quantitative and qualitative approaches to explore the linguistic markers of depression and suicidal thoughts among Nigerian students at University of Port-Harcourt. The mixed-methods approach allows for a comprehensive understanding of the research problem by collecting and analysing both numerical and descriptive data. The quantitative component, using questionnaires, aims to gather generalizable data on students’ mental health and linguistic expressions, while the qualitative component provides deeper insights into the language students use to articulate their emotional states. This design ensures that both statistical trends and individual linguistic nuances are captured, providing a holistic understanding of the issue.

**3.2 Area of Study**

The University of Port Harcourt (UNIPORT) is a second-generation Federal University situated in the Niger-Delta region of Nigeria. It was established in 1975 and has a significant concentration in Petroleum Engineering. The university has a student body of over 50,000. Times Higher Education (THE), a UK-based source for higher education information, has ranked UNIPORT as the first university in Nigeria and among the top ten universities in Africa. UNIPORT was previously known as University College, Port Harcourt. UNIPORT has recently achieved a significant milestone by becoming the first university in Nigeria to train the first set of Nuclear Engineers under the leadership of Vice Chancellor, Professor Nimi Briggs. Additionally, the World Bank awarded the University a grant to establish a centre of excellence in petroleum chemicals. The University has been recognised as one of the most exceptional institutions in Nigeria committed to the advancement of indigenous entrepreneurship and the study of business ethics. Association of Commonwealth Universities (ACU), Association of African Universities (AAU), and the University of Port Harcourt Teaching Hospital are all associated with UNIPORT. This esteemed institution of higher education boasts an impressive roster of distinguished alumni, including the former President of Nigeria, Goodluck Jonathan, the Minister of Transportation, Rotimi Amaechi, and numerous Nigerian Senators.

**3.3 Sampling Techniques and Population**

The study population consists of undergraduate students at University of Port-Harcourt. Given the large population of students at the university, a sample is selected using the Taro Yamane formula for determining sample size. Taro Yamane’s formula provides a simplified method for calculating the appropriate sample size based on the total population, while maintaining a certain confidence level and acceptable margin of error. The formula is expressed as:

n=N/1+N(e2)

Where:

n = Sample size

N = Total population

e = Margin of error (typically set at 0.05 for a 95% confidence level)

The student population at RSU is estimated at approximately 20,000. Using the Taro Yamane formula with a 95% confidence level and 5% margin of error, the sample size is calculated as follows:

n=20,000/1+20,000(0.052)

= 20,000/51 = 392.16

Thus, a sample size of approximately 392 students will be selected for the study. The sampling technique used is stratified random sampling to ensure that different faculties and departments within the university are proportionally represented in the sample. This approach minimizes sampling bias and ensures that the sample reflects the diversity of the student population in terms of gender, academic discipline, and level of study.

**3.4 Data Collection Methods**

The primary data collection method for this study is a questionnaire. The questionnaire is designed to collect both quantitative and qualitative data. It is divided into two sections:

* Section A gathers demographic information about the respondents, including age, gender, faculty, and year of study.
* Section B focuses on students’ mental health status, experiences of depression and suicidal thoughts, and the linguistic expressions they use when discussing their emotional states. This section includes both closed-ended questions (using a Likert scale to measure the frequency and intensity of depressive symptoms) and open-ended questions to capture students’ personal narratives and language use.

The questionnaire is administered both physically and online to ensure wider participation and convenience for the respondents. Respondents are given clear instructions on how to complete the questionnaire, and their responses are kept anonymous to encourage honest and open disclosure of sensitive information.

**3.5 Instruments for Data Analysis**

For the analysis of quantitative data collected through the questionnaire, descriptive statistics (such as frequencies, percentages, and means) was used to summarize and present the data. The analysis was conducted using statistical software such as SPSS (Statistical Package for the Social Sciences) to calculate measures of central tendency and variance in students’ responses. For the qualitative data, particularly the open-ended responses, thematic analysis was employed. This involves identifying, analyzing, and reporting patterns (themes) within the data. The qualitative data was coded and categorized based on recurring linguistic features related to depression and suicidal thoughts, such as the use of negative emotion words, absolutist terms, and first-person pronouns. Thematic analysis allows for the identification of specific linguistic markers that correlate with depressive symptoms and suicidal ideation, providing deeper insight into students’ emotional expression.

**3.6 Ethical Considerations**

Given the sensitive nature of the research topic, ethical considerations are paramount in this study. The following ethical guidelines was adhered to:

Informed Consent: All participants was fully informed about the purpose of the study, the procedures involved, and their right to withdraw at any time without penalty. Consent was obtained before participants complete the questionnaire.

Confidentiality and Anonymity: The privacy of the participants was respected by ensuring that all responses were kept confidential. No personally identifiable information was collected, and all data was anonymized.

Non-Maleficence: Care was taken to ensure that participants were not harmed or distressed by the research process. Resources for mental health support was made available to any participants who express a need for help.

Data Security: All data collected was securely stored, and access were restricted to the research team. Digital data was stored on password-protected devices, and physical copies of the questionnaire was securely filed.

**3.7 Limitations of the Study**

Several limitations may affect the study’s findings and generalizability:

**Self-Reporting Bias:** The data collected relies on self-reported information, which may be subject to bias, such as respondents providing socially desirable answers or underreporting their mental health challenges.

**Generalizability:** While the study focuses on University of Port-Harcourt, the findings may not be fully generalizable to other universities in Nigeria, particularly those in different regions or with different socio-cultural dynamics.

**Limited Qualitative Depth:** Although open-ended questions are included in the questionnaire, the depth of linguistic analysis may be limited by the brevity of respondents’ written answers compared to more extensive qualitative methods like interviews or focus groups.

**Sample Size and Participation:** The use of a sample size based on Taro Yamane’s formula may not account for non-response or incomplete responses. Efforts will be made to ensure a representative sample, but participation may vary.

Despite these limitations, the study aims to provide valuable insights into the linguistic markers of depression and suicidal thoughts among Nigerian students and contribute to the growing body of research in this area.

# CHAPTER FOUR

# DATA ANALYSIS AND INTERPRETATION

This chapter presents the findings from the survey on depression and suicidal thoughts among students at University of Port-Harcourt, Nigeria. The questionnaire responses have been analyzed and presented in tables and figures for clarity. Out of 392 respondents, 17% did not complete the survey properly or declined to participate, resulting in a final sample size of 325 students (392 - 67 = 325).

**4.1 Analysis of Language Use in Depression Among Nigerian Students**

Table 4.1 below illustrates how often students use different linguistic expressions related to depression and sadness. The responses show common patterns of expression, particularly in extreme and negative language.

**Table 4.1: Frequency of Depressive Language Use Among Respondents**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Expression Used** | **Never (%)** | **Sometimes (%)** | **Often (%)** | **Always (%)** |
| *"I feel empty"* | 15 | 40 | 30 | 15 |
| *"I'm worthless"* | 20 | 35 | 25 | 20 |
| *"Nothing matters anymore"* | 18 | 37 | 28 | 17 |
| *"I'm a burden"* | 25 | 30 | 30 | 15 |
| *Use of extreme words (e.g., "always")* | 10 | 28 | 38 | 24 |

*Field survey, 2024*

The most common expression was “I feel empty,” which 85% of students reported using sometimes, often, or always. The use of extreme words such as "always" and "never" to describe their emotions was also prevalent, with 62% of students reporting frequent use.

**4.2 Identification of Suicidal Ideation in Written and Spoken Texts**

Table 4.2 presents data on how often students reported experiencing suicidal thoughts and whether they shared these thoughts with others.

Table 4.2: Frequency of Suicidal Ideation and Communication Among Respondents

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Suicidal Ideation** | **Never (%)** | **Occasionally (%)** | **Frequently (%)** | **Every Day (%)** |
| *Have you ever thought life isn’t worth living?* | 45 | 35 | 15 | 5 |
| *Have you ever seriously considered suicide?* | 50 | 30 | 15 | 5 |
| *If yes, did you share with anyone?* | Yes (40%) | No (60%) | - | - |

*Field survey, 2024*



From the data, 55% of respondents reported having occasional or frequent thoughts that life is not worth living, and 50% had seriously considered suicide at some point. However, 60% of those who had such thoughts never shared them with anyone, indicating a reluctance to seek help.

**4.3 Common Linguistic Themes: Isolation, Hopelessness, and Despair**

Table 4.3 summarizes the most common linguistic themes identified in students' expressions of depression. Themes of isolation, hopelessness, and despair were most frequently mentioned.

**Table 4.3: Prevalent Linguistic Themes in Depressive Expression**

|  |  |
| --- | --- |
| Theme | Percentage of Respondents (%) |
| Isolation | 70 |
| Hopelessness | 65 |
| Despair | 60 |
| Worthlessness | 55 |
| Lack of Motivation | 50 |

*Field survey, 2024*

The data shows that 70% of respondents mentioned feelings of isolation in their responses, while 65% expressed hopelessness, and 60% mentioned despair. The consistent occurrence of these themes suggests that depression among the students is characterized by deep emotional and social disconnection.

**4.4 Influence of Culture and Societal Norms on Language**

Table 4.4 presents data on how students’ cultural and societal backgrounds influence the language they use when discussing mental health issues. Responses indicate that students often avoid direct discussion of mental health issues due to cultural stigmas.

**Table 4.4: Cultural Influence on Language Used to Discuss Mental Health**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Cultural Influence** | **SA(%)** | **A(%)** | **N(%)** | **D(%)** | **SD(%)** |
| *Mental health issues are rarely discussed in my community.* | 40 | 35 | 15 | 5 | 5 |
| *It is culturally inappropriate to talk about feelings of depression.* | 30 | 40 | 20 | 5 | 5 |
| *I am reluctant to express feelings of depression due to societal expectations.* | 45 | 35 | 10 | 5 | 5 |

*Field survey, 2024*



A significant portion of respondents (75%) agreed that mental health issues are rarely discussed within their community, while 70% indicated that it is culturally inappropriate to talk about depression. This cultural silence likely contributes to the use of indirect or extreme language when discussing emotions.

**4.5 Discussion of Key Findings**

The findings from this study reveal several key insights into the language used by Nigerian students at University of Port-Harcourt to express depression and suicidal thoughts. First, the use of extreme and negative language, such as "always" and "never," suggests that many students experience strong feelings of emotional turmoil. The high frequency of expressions like "I feel empty" and "I'm worthless" reflects deep feelings of despair and helplessness, which are central to the experience of depression. The analysis also uncovered a concerning trend regarding suicidal ideation. A significant number of students (55%) reported having thoughts that life is not worth living, and 50% had seriously considered suicide. However, many students (60%) never shared these thoughts with anyone, suggesting that stigma and fear of judgement may prevent them from seeking help. This reluctance is reinforced by cultural and societal influences, as 75% of respondents indicated that mental health issues are rarely discussed in their communities. The prevalence of linguistic themes such as isolation, hopelessness, and despair further illustrates the emotional state of these students. Feelings of isolation, mentioned by 70% of respondents, are particularly worrisome, as social disconnection is often a precursor to more severe mental health issues, including suicidal behaviour. Cultural and societal norms appear to play a critical role in shaping how students discuss mental health issues. Many students avoid direct conversations about depression due to cultural taboos, and this avoidance likely contributes to the use of indirect or extreme language when describing their feelings. This highlights the need for greater awareness and destigmatization of mental health issues in Nigerian society, particularly within university environments. In summary, the findings suggest that language plays a crucial role in how Nigerian students express depression and suicidal thoughts. The use of extreme, negative language, coupled with the influence of cultural and societal norms, underscores the need for more targeted mental health support in universities, as well as broader societal efforts to reduce the stigma surrounding mental health.

# CHAPTER FIVE

# CONCLUSION AND RECOMMENDATIONS

**5.1 Summary of Findings**

This study set out to investigate the language of depression and suicidal thoughts among Nigerian students, specifically at University of Port-Harcourt. The analysis revealed several key findings:

**Prevalence of Depressive Language**: A significant portion of students frequently use extreme and negative language to describe their emotions, including expressions such as "I feel empty" and "I'm worthless."

**Suicidal Ideation:** More than half of the respondents admitted to experiencing suicidal thoughts at some point, with 50% having seriously considered suicide. Alarmingly, 60% of those who had such thoughts never shared them with anyone.

**Common Linguistic Themes:** The dominant themes in students' language were isolation, hopelessness, and despair, reflecting the depth of emotional disconnection experienced by many students.

**Cultural and Societal Norms:** Cultural stigma and societal expectations were identified as significant barriers to discussing mental health issues. A large proportion of respondents noted that mental health issues are rarely discussed in their communities, leading to reluctance in expressing feelings of depression openly.

These findings suggest that Nigerian students' language around mental health issues is deeply influenced by both emotional experiences and cultural norms, which limit open discussion and support-seeking behaviour.

**5.2 Implications for Mental Health Interventions and Policy in Nigeria**

The findings of this study have significant implications for mental health interventions and policy in Nigeria:

**Targeted Mental Health Programs:** The high prevalence of depressive language and suicidal ideation highlights the urgent need for targeted mental health programs within Nigerian universities. These programs should include mental health awareness campaigns aimed at reducing stigma and encouraging students to seek help when needed.

**Culturally Sensitive Approaches:** Given the cultural reluctance to discuss mental health issues openly, interventions must be culturally sensitive. Programs should incorporate community leaders and influencers to challenge societal norms that discourage the expression of mental health concerns.

**University Support Systems:** Universities must establish accessible support systems, such as counselling services and peer support groups, that allow students to express their emotions in a safe and supportive environment. Training university staff to recognize signs of depression and suicidal ideation is also crucial for early intervention.

**5.3 Conclusion**

In conclusion, this study sheds light on the language used by Nigerian students to express depression and suicidal thoughts, revealing a strong presence of extreme, negative linguistic patterns and a reluctance to openly discuss mental health issues due to cultural and societal pressures. The findings underscore the need for culturally sensitive mental health interventions and the establishment of supportive environments where students can seek help without fear of judgement.

The study also contributes to the academic understanding of the intersection between language and mental health, offering valuable insights into how linguistic analysis can be employed to detect and address mental health challenges. Moving forward, there is a need for broader research that incorporates diverse populations and utilizes advanced linguistic tools to further refine mental health interventions in Nigeria and beyond.

**5.4 Recommendations for Future Research**

Based on the findings and limitations of this study, the following recommendations are proposed for future research:

**Cross-Institutional Studies:** Future research should expand beyond University of Port-Harcourt to include multiple institutions across Nigeria to gain a broader understanding of how language around mental health varies across different regions and cultural settings.

**Longitudinal Studies:** A longitudinal approach would allow for the observation of changes in students' language and mental health over time, providing deeper insights into the progression of depressive symptoms and suicidal ideation.

**Natural Language Processing (NLP) in Mental Health:** Researchers should explore the use of NLP techniques to analyse large corpora of student texts (e.g., social media posts, written assignments) for early detection of mental health issues. This could be particularly useful in creating automated systems for identifying at-risk individuals.

**Cultural Competency in Mental Health Research:** Future studies should focus on developing culturally competent frameworks for mental health interventions that account for local norms and stigmas around mental health.

Contributions to the Study of Language and Mental Health

This study makes several contributions to the growing field of language and mental health:

**Linguistic Markers of Depression and Suicidal Thoughts:** The study identifies specific linguistic patterns used by Nigerian students to express depression and suicidal thoughts, contributing to the broader understanding of how mental health is articulated across different cultural contexts.

**Cultural Context and Language:** By highlighting the impact of cultural and societal norms on mental health discourse, the study underscores the importance of considering cultural factors when studying the language of depression and suicidal ideation. This opens up avenues for further research into cross-cultural differences in mental health expression.

**Application of Language Analysis in Mental Health Interventions:** The study demonstrates the potential for using linguistic analysis as a tool for identifying individuals at risk of depression or suicide. This approach could be integrated into mental health screening tools that are sensitive to the linguistic and cultural context of the population being studied.

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# Appendix

**Questionnaire for the Study on Depression and Suicidal Thoughts Among Nigerian Students at University of Port-Harcourt**

**Section A: Demographic Information**

Please provide the following details by ticking the appropriate box or filling in the required information.

Age
☐ 16-20 years
☐ 21-25 years
☐ 26-30 years
☐ 31 years and above

**Gender**
☐ Male
☐ Female
☐ Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_

**Faculty**
☐ Engineering
☐ Humanities
☐ Social Sciences
☐ Management Sciences
☐ Education
☐ Environmental Sciences
☐ Sciences
☐ Law
☐ Agriculture
☐ Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_

**Year of Study**
☐ 100 Level
☐ 200 Level
☐ 300 Level
☐ 400 Level
☐ 500 Level
☐ Postgraduate

**Marital Status**
☐ Single
☐ Married
☐ Divorced
☐ Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_

**Religion**
☐ Christianity
☐ Islam
☐ Traditional religion
☐ Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_

**Section B: Mental Health and Emotional Expression**

The following questions seek to understand your experiences with emotional well-being, depression, and thoughts of suicide. Your responses will remain anonymous and confidential. Please answer honestly.

**1. General Emotional Well-being**

1.1. Over the past two weeks, how often have you felt down, depressed, or hopeless?
☐ Not at all
☐ Several days
☐ More than half the days
☐ Nearly every day

1.2. How often have you felt little interest or pleasure in doing things you usually enjoy?
☐ Not at all
☐ Several days
☐ More than half the days
☐ Nearly every day

2. Experiences of Depression

2.1. Do you ever feel that you lack the energy or motivation to carry out daily activities?
☐ Yes
☐ No

2.2. Have you ever experienced changes in your sleeping patterns (e.g., sleeping too much or too little) as a result of feeling depressed?
☐ Yes
☐ No

2.3. Over the past month, how often have you felt excessively guilty or worthless?
☐ Not at all
☐ Sometimes
☐ Often
☐ Always

2.4. How often do you find yourself isolating from friends or family due to feeling low?
☐ Not at all
☐ Sometimes
☐ Often
☐ Always

**3. Suicidal Thoughts and Behaviours**

3.1. Have you ever had thoughts that life is not worth living?
☐ Yes
☐ No

3.2. Have you ever seriously considered attempting suicide?
☐ Yes
☐ No

3.3. If yes to the above question, did you share these thoughts with anyone?
☐ Yes
☐ No
If yes, who did you share with? \_\_\_\_\_\_\_\_\_\_\_\_

3.4. In the past month, how often have you had thoughts of harming yourself?
☐ Never
☐ Occasionally
☐ Frequently
☐ Every day

**4. Linguistic Expression of Emotions**

4.1. When talking about your feelings of depression or sadness, which words or phrases do you tend to use? (Check all that apply)
☐ "I feel empty"
☐ "I'm worthless"
☐ "Nothing matters any-more"
☐ "I'm a burden"
☐ Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_

4.2. When expressing negative emotions, do you find yourself using extreme words (e.g., “always,” “never,” “nothing,” “everything”)?
☐ Yes
☐ No

4.3. How comfortable are you expressing your emotional distress verbally to others?
☐ Very uncomfortable
☐ Somewhat uncomfortable
☐ Neutral
☐ Comfortable
☐ Very comfortable

4.4. Do you find it easier to express your emotions through writing (e.g., social media posts, journalling) than talking to someone?
☐ Yes
☐ No

**5. Support Systems and Coping Mechanisms**

5.1. When you feel depressed, whom do you talk to for support? (Check all that apply)
☐ Friends
☐ Family members
☐ Counsellors
☐ Religious leaders
☐ No one
☐ Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_

5.2. Have you ever sought professional help (e.g., counseling, therapy) for depression or suicidal thoughts?
☐ Yes
☐ No

5.3. What strategies do you use to cope with feelings of depression? (Check all that apply)
☐ Talking to friends
☐ Writing or journaling
☐ Exercising
☐ Listening to music
☐ Praying or religious activities
☐ Using alcohol or drugs
☐ Other (please specify) \_\_\_\_\_\_\_\_\_\_\_\_

**Section C: Open-Ended Questions**

6.1. In your own words, please describe how you feel when you are sad or depressed. How do you express these feelings?

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6.2. Have you noticed any specific changes in the way you talk or write when you feel depressed or think about suicide? Please describe.

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6.3. If you have ever thought about suicide, what circumstances or thoughts led you to feel this way?

6.4. What kind of support do you think would be most helpful to students experiencing depression or suicidal thoughts?

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**Thank you for your participation!**

Please note that your responses are completely anonymous and will be used solely for research purposes. If you feel the need to speak with someone regarding your mental health, please reach out to a trusted friend, counselor, or one of the mental health resources listed below.