The Language of Depression: A Multi-phase Analysis on the Language Patterns of Filipinos with Varying Levels of Clinical Depressive Symptoms

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Abstract

Clinical depression is a prevalent and severe medical condition that can significantly affect an individual's cognitive processes, behavioral patterns, and overall health. In the Philippines, mental health treatment faces persistent challenges, such as inadequate funding, shortage of mental health professionals, and underdeveloped mental health services. Several studies have utilized language as a means to identify clinical depression. However, limited attention has been devoted to exploring possible differences in the linguistic patterns exhibited by individuals with different levels of clinical depressive symptoms. The researchers employed a multiphase analysis and descriptive cross-sectional research designs to examine the macro language structure, i.e., pronouns, adjectives, adverbs, clauses, spoken/figurative language, and verb tense and aspect, in persons with clinical depressive manifestations. Subsequently, the language patterns were evaluated based on the participants' levels of depressive symptoms. Research findings indicate that individuals with clinical depressive symptoms exhibit a higher frequency of first-person pronouns, negative adjectives, absolutist adverbs, single-clause sentences, spoken language, present tenses, and continuous aspect. However, when comparing levels, differences in macro language patterns may suggest a proclivity of depressed individuals towards rumination and depersonalization. Implications for the use of language as a preliminary screening tool for diagnosis are discussed.

1 Introduction

Major depressive disorder or clinical depression is a prevalent severe mood disorder. Individuals afflicted with depression endure persistent emotions of hopelessness and pessimism, leading to a loss of interest in previously pleasurable activities. The American Psychiatric Association (APA) associates symptoms such as persistent depressed mood, marked decrease in interest or pleasure in activities, significant weight loss or gain without intentional dieting, changes in appetite, and daily fatigue or loss of energy with the disorder.

In the Philippines, mental health disorders are the third most prevalent form of disability (Martinez et al., 2020). Approximately 20% of Filipino youth between the ages of 15 and 24 had contemplated suicide at some point (Kabamalan, 2022). Furthermore, the widespread presence of mental health illiteracy in the Orient is reflected in the country's mental health status, characterized by inadequate mental health care infrastructure, a scarcity of trained practitioners, and limited access to and high cost of services. Notwithstanding these grave data, the efforts of various specialists remain insufficient. Hence, there is a need for a readily accessible and readily available diagnostic instrument for clinical depression.

Recently, there has been a growing interest in studying the language patterns of people who have clinical depression. By employing a methodical examination of linguistic content, researchers could precisely categorize patients into their respective diagnostic groupings. Patients with depression are often examined for deviant written and spoken languages (Smirnova et. al, 2018). Literature suggests that language, being a prevalent and conspicuous aspect of everyday life, can serve as a tool for specialists to identify clinically depressed persons by analyzing their linguistic

patterns. Therefore, the potential of language as a means for screening for clinical depression is considerably high. According to Andreasen and Pfohl (1976), language can serve as a distinct indicator of depression. Previous research has conducted comparisons between the linguistic patterns associated with moderate depression and those associated with normal sadness and a euthymic state (Smirnova et al., 2018). Studies have also been conducted on the utilization of first-person pronouns, such as I, me, and myself, as the most commonly used words by individuals experiencing depression. These pronouns have been identified as potential indicators of future symptoms of depression (Al-Mosaiwi & Johnstone, 2018; Brockmeyer, 2015; Stirman & Pennebaker, 2001; Zimmermann et. al, 2016).

Although considerable research has been devoted to the comparison of language patterns of clinical depression and normal sadness, language patterns varying in different culture and demographic profiles, language patterns of suicidal and non-suicidal individuals, and self-focus as an indicator of anxiety and depression (Al-Mosaiwi & Johnstone, 2018; Brockmeyer (2015); Rude et al., 2004; Smirnova et al., 2018; Stirman and Pennebaker, 2001; Zimmerman et al., 2016), less attention has been paid to the language patterns of individuals with clinical depressive symptoms with varying levels of manifestations

To help fill this gap, the present study examines the macro language patterns of individuals with varying levels of depressive symptoms.

1) What are the macro language structures of Filipinos with depressive symptoms

2) How do the language patterns of the participants compare when grouped according to the level of depressive symptoms?

2 Review of Related Literature

2.1 Existing Diagnostic Tools for Depression

The diagnosis of depression has traditionally been made through clinical criteria, such as the patient's current symptoms and history. Mental health professionals may use various existing interventions to assess or evaluate the severity and nature of depressive symptoms in an individual. The American Psychiatric Association (APA) Diagnostic Statistical Manual 5th Edition (DSM-5) criteria for major depressive disorder is one of the prevalently used diagnosing tools of many mental health professionals, worldwide. Its standardization, unified research and treatment, mental health continuity framework on various disorders are the contributing factors behind the immense international influence of DSM-5. The manual redefined and reconceptualized the discipline of psychiatric disorders into a universal or common language (Van Heugten – Van Der Kloet & Van Heugten, 2015). It classify clinical depression or major depressive disorder as a common and serious mood disorder. People with depression suffers and experience continuous feelings of hopelessness and pessimism, and they lose interest in formerly enjoyable activities. In addition to the emotional problems, people may experience physical issues such as persistent pain or digestive troubles (American Psychiatric Association, 2013). With symptoms, such as depressed mood most of the day (nearly every day), a significant decrease in interest or pleasure (in all, or almost all, activities most of the day, nearly every day), significant weight loss or gain without dieting (as well as a drop or increase in appetite almost every day), fatigue or loss of energy nearly every day, etc. In which, physiological symptoms, such as weight gain or loss, deeply disrupt the multifaceted aspects of weight management for many individuals (Sarte Jr. & Quinto, 2024).

In the last two decades, healthcare settings have also started using a variety of screening tools that possess outstanding psychological qualities. The Beck's Depression Inventory (BDI) (Beck et al., 1961) is one of the tools utilized to evaluate an individual's severity of depression. This measure is extensively used in both clinical treatment and research to evaluate depression. With broad applicability in research and clinical practices, the BDI has established itself in quantifying the extent of depressive symptoms and covers cognitive and emotional manifestations of clinical depression (Wang & Gorenstein, 2013). Furthermore, the Zung Self-Rating Depression Scale (SDS) also helps professionals in measuring or quantifying the severity of depression. It covers a range of manifestations, such as somatic, affective, and physical symptoms. Compared to other self-rating scale, the SDS notably focuses on the physical symptoms of depression, which justify its holistic approach in assessing the nature of the disorder. The development of the two aforementioned self-report depression scales also gave rise to The Patient Health Questionnaire-9 (Kroenke et al., 2001), a highly prevalent screening instrument utilized in clinical depression. Systematic reviews and metal-

analyses argues that PHQ-9 is the most valid and reliable depression screening tool in terms of sensitivity and specificity (Costantini et al., 2021; El-Den et al., 2018).

Undoubtedly, the interdisciplinary field of clinical psychology has greatly benefited by the development of many psychological interventions, screening tools, and scientific treatments for clinical depression over the course of many decades. In the 21st century, the advancement of technology may lead to the development of new instruments that can help specialists gain a deeper understanding of clinical depression and improve its treatment. However, the availability of traditional and emerging diagnosing tools will be the ultimate determining factor of its contribution.

2.2 Issues Surrounding Access and Availability of Diagnostic Tools

The presence of various interventions, criteria, screening tools for major depressive disorder demonstrates a substantial body of knowledge that has been comprehensively grasped regarding its whole nature. Paradoxically, it is estimated that 5% of the global population or 280 million of adults suffers from clinical depression, with varying severity (World Health Organization, 2023). In the Philippines, it is estimated that 3.3 million Filipinos suffer from depressive disorders, with suicide rates in 2.5 males and 1.7 females per 100,000 (Reddy, 2016). Additionally, a comprehensive study conducted across the entire country, with a sample size of 19,017 participants aged 15 to 24, revealed that a significant proportion of young Filipino adults, namely up to 8.9% (with a 95% confidence interval ranging from 8.3% to 9.6%), experience moderate to severe depressive symptoms. Despite the presence of different diagnostic tools, the longstanding issues surrounding the access and availability of these tools is considered as the major factor to the slow-moving rate of decreasing number of people with clinical depression.

Countries in the Global South are severely deprived and deficient with mental health care, compared to countries in Global North. Lacks in primary care practitioners, mental health training, and transport to enable outreach and home visit programmes are some of the major supply problems that Low-or-Middle-Income countries experiences. On the demand side, populations frequently lack comprehensive knowledge regarding mental health illnesses, as well as the suitability of seeking assistance for mental health issues at primary health centers, and financial constraints that hinder individuals from accessing primary health centers due to insufficient funds for transportation and frequent out-of-pocket expenses (Minas, 2017). In the Philippines, mental health care continues to encounter issues, including underinvestment, lack of mental health professionals and underdeveloped mental health services (Lally et al., 2019). Furthermore, the Philippines has a significant disparity between the number of mentally ill patients and the availability of psychiatrists and psychologists. Specifically, there is only one psychiatrist for every 250,000 mentally ill patients, which is far below the recommended ratio of one psychiatrist for every 50,000 patients (Ferrolino, 2017).

The issue of availability to diverse screening and diagnostic tools for clinical depression is a prevalent challenge faced by many individuals. In the Orient, financial capacity and lack of health insurance are one of the leading factors influences Filipino on their reluctant and unfavorable behaviors on clinical depression (Martínez et al., 2020). Aside from these factors, language injustice also affects healthcare accessibility for many individuals in the country, especially for ethnolinguistically marginalized Filipinos. Literature suggests that during the pandemic, deprivation of language rights resulted in a higher risk of contracting the virus, highlighting the importance of language in disseminating official information (Quinto et al., 2022). Availing different screening and diagnostic tools for clinical depression is considered as economic burden for many individuals, due to its high cost. With all of the issues surrounding the availability and accessibility of diagnostic tools for clinical depression, there is a need for a cost-effective preliminary diagnostic tool.

2.3 Language Patterns and Clinical Depression

Trends on the language patterns of individuals with clinical depression has been emerging in many years. Research suggests that the distinct language patterns may impose as a screening tool or preliminary diagnostic tool for clinical depression. It has been found that samples from those who progressed to psychosis had lower semantic density than samples from a large database of normal language (Reynolds, 2019).

Other studies have shown that people with mild depression, compared with healthy individuals, had written responses which were longer, demonstrated descriptive rather than analytic style, showed signs of spoken and figurative language, single-clause sentences domination over multi-clause, atypical word order, increased use of personal and indefinite pronouns, and verb use in continuous/imperfective and past tenses. Greater use of lexical repetitions, omission of words, and verbs in continuous and present tenses were also previously observed. Through language analysis, mild depression was significantly differentiated from normal sadness and euthymic state. There is in fact a significant difference on the language patterns of people who have depression from those who just feel normal sadness (Smirnova et al., 2018).

People who have depression and anxiety both use first person singular pronouns (i.e., me, myself, I), use more absolutist words without nuance (i.e., always, totally, entire), and make more use of negative words in describing emotions (Al-Mosaiwi & Johnstone, 2018). The use of First- person pronoun during negative and not positive memory recall is complimentarily related to a sudden change of mood which is considered an inadequate adaptation part of the components of meditative self-focus (Brockmeyer, 2015). An increased use of first-person singular pronouns is more evident in the writing of suicidal poets relative to non-suicidal poets (Stirman & Pennebaker, 2001). The first-person pronouns such as a I, me, and my, can be used as a predictor for future depressive order. Patients with higher first-person singular pronoun use while doing their methodology did not show elevated levels of depressive symptoms at baseline. Although, first-person singular pronoun used significantly predicted depressive symptoms approximately eight (8) months later (Zimmermann et al., 2016). Depressed individuals may be caught in a negative self-regulatory cycle where depression effects lead to heightened focus on personal shortcomings, which, in turn, leads to more depression effects, resulting in more self-focus (Pyszczynski & Greenberg, 2014).

Moreover, trends in the analysis of self-diagnosed reports, sentiments, and emotional attributes from various social media platforms have emerged. Language differences across nine language categories, such as personal pronouns, positive emotions, social words, and negative emotions, were traced among Twitter users (now known as X) (Suzuki et al., 2024). Topic modeling techniques and pre-trained, machine-learning-based emotion analysis algorithms suggest that individuals' sentiments and emotional attributes are influenced by social media keywords and posts (Balan et al., 2023).

The notable disparities in language patterns between those with mild depression and those with normal levels of sadness indicate that language patterns can be utilized to distinguish between depression and regular sadness. Furthermore, the extensive body of literature that uncovers distinctive linguistic patterns of individuals with clinical depression underscores the significance of this knowledge. However, a comprehensive examination of the linguistic patterns exhibited by persons at different stages of depression has not been carried out. Hence, the researchers intend to undertake a study on the linguistic patterns exhibited by individuals with different degrees of depression.

3 Methodology

3.1 Data Collection

Guided by the schema of multi-phase analysis of Creswell and Plano (2011) and descriptive cross-section research design by Johnson (2001), the researchers implemented various processes to collect data. Upon the approval of rightful permission, the researchers asked a total of 338 young adults to answer the first quantitative part of the study, 1st English writing proficiency exam and Beck's Depression Inventory Scale-II edition. This served as the baseline of the study that helped in screening the participants whether they are proficient in the English written language and have manifestations of clinical depression. A debriefing message, approved by a licensed psychologist, was included in the dissemination of the initial English writing competence examination and BDI-II assessment to prevent the retraumatization of individuals.

Only 20 participants met the qualifications for the second screening of the study. Subsequently, the participants were voluntarily requested to complete the 2nd English writing proficiency test and Diagnostic Statistical Manual-5th Edition criteria for major depressive disorder. These assessments served as the researchers' final means of evaluating whether the participants exhibited symptoms of clinical depression and possessed genuine proficiency in written English. While the typical method for assessing major depressive disorder is through clinical interviews conducted

by licensed mental health professionals, it is worth mentioning that in this study, the use of DSM-5 criteria was implemented in the form of a self-report scale was under the guidance and approval of a registered psychologists. Similar to the administration of BDI-II, to avoid retraumatizing the individuals, a debriefing was conducted through a message included with the scale, approved by a licensed psychologist. The researchers did not only depend on the entire inventory scale and criteria for depression utilized in this study; rather, they sought guidance from a licensed psychologist at each stage of the procedures undertaken. The utilization of a psychologist rather than a psychiatrist aligned with the purpose and nature of DSM-5 usage. Psychologists are highly skilled in diagnosing and addressing mental health disorders, primarily focus on psychotherapy, counseling, assessment, and behavioral interventions. These professionals often favor therapeutic approaches over medical interventions, using the DSM-5, as their main tool for guiding treatment plans (APA, 2017). Since the present study did not require pharmacological expertise, the involvement of a registered psychologist in participant selection was sufficient to ensure appropriate participant selection. Upon completion of the second quantitative phase of the study, the researchers once again screened the participants.

A total of 9 volunteers/participants who successfully met the requirements in the final phase of the study. They were invited to voluntarily complete a written report containing three questions pertaining to their life events. A subject matter expert conducted a briefing session. The participants provided their responses to the written report in a tranquil and noise-free environment, equipped with air conditioning. The respondents were not provided with any guidelines or restrictions by the certified psychologist regarding how they should react to the written reports since restrictions could potentially restrict the respondents' ability to provide comprehensive responses to the written reports. After the participants have completed their written reports, debriefing meetings were conducted to address any potential psychological effects, ensure their well-being, provide additional information, and obtain their informed permission. The debriefing session was led by a licensed mental health practitioner. The researchers employed descriptive statistics, including frequency counts and manual calculation of percentages. Throughout the study, the respondents had the autonomy to withdraw from their involvement at any stage if they desired. They were always asked willingly not required. The entirety of the data and information utilized in the study will consistently remain anonymous and exclusively serve scholarly purposes.

4 Results

This section presents the results of this multi-phase analysis of the language patterns of individuals with varying levels of clinical depressive symptoms.

Language Aspects		Mean Frequency per Essay	%
Pronouns			
	First	252	69
Adjectives			
	Negative	76	67
Adverb			
	Absolutist	37	57
Clauses			
	Single	66	63
Language			
Signs of Spoken Language		61	90
Use of Tenses			
	Present	104	82
Use of Aspect			
	Continuous	90	88

Table 1. Overall Mean Frequencies and Percentage Distribution per Language Aspect

Table 1 demonstrates that first-person pronouns exhibited the highest average frequency per essay, totaling 252 usages, surpassing the frequencies of second, third, and indefinite pronouns. In terms of adjectives, negative adjectives were more prevalent, totaling 76. The frequency of single clauses is higher, with a total of 66, compared to multiple clauses. The spoken languages likewise have a greater mean frequency, totaling 61. The present tenses have a higher frequency compared to the past tenses, with a mean of 104 and a particularly high frequency of continuous tenses, totaling 90.

Pronouns	1st Person		2nd Person		3rd Person	
	$\bar{x}$	%	$\bar{x}$	%	$\bar{x}$	%
Borderline	38	15	0	0	5	9
Moderate	50	20	3	25	20	36
Severe	102	40	4	33	17	30
Extreme	62	25	5	42	14	25
Total	252	100	12	100	56	100

Table 2. Mean Frequency and Percentage Distribution of the Use of Pronouns

Table 2 indicates that the lowest level of depressive symptoms is observed in individuals who least used first-person pronouns at a borderline level (15%). The moderate level of depression follows closely behind with a 20% usage of first-person pronouns. The highest level of depression, classified as extreme, used a total of 25% first person pronouns. Finally, the severe level of depressive symptoms exhibited the highest percentage (40%) of first-person pronoun usage, indicating that individuals at this level rely on first person pronouns more than those at other levels. When it comes to the second-person pronouns used, the borderline level indicates a complete absence of any usage of second-person pronouns. The data indicates that as the level increases the frequency of used also increases. The data in the third-person pronouns column indicates that the lowest proportion, at 9%, corresponds to the borderline level. While the moderate level had the highest usage.

Adjectives	***Positive (good,***		***Negative (bad, terrible, hard, tragic)***		**Total**	
	$\bar{x}$	**%**	$\bar{x}$	**%**	$\bar{x}$	**%**
Borderline	7	19	8	11	15	13
Moderate	10	27	14	18	24	21
Severe	11	27	32	42	43	38
Extreme	10	27	22	29	32	28
Total	37	100	76	100	114	100

Table 3. Mean Frequency and Percentage Distribution of the Use of Adjectives

Table 3 presents the frequency of positive and negative adjectives used in written reports for each level of depressive symptoms. For positive adjectives, except for borderline, all three levels - moderate, severe, and excessive - have an equal utilization proportion of 27%. When it comes to negative adjectives, the borderline level has the lowest frequency of usage, accounting for only 11%. The moderate level ranks second lowest in terms of the frequency of negative adjective usage, with a result of 18%.

Adverb	**Absolutist**		**Non-Absolutist**		**Total**	
	$\bar{x}$	**%**	$\bar{x}$	**%**	$\bar{x}$	**%**
Borderline	4	11	7	25	11	17
Moderate	8	22	7	25	15	23
Severe	12	32	9	32	21	32
Extreme	13	35	5	18	18	28
Total	37	100	28	100	65	100

Table 4. Mean Frequency and Percentage Distribution of the Use of Adverb

Table 4 displays the frequency of absolutist and non-absolutist words used by respondents with different levels of depressive symptoms, as indicated by their written responses. According to the table, the lowest level of absolutist word usage is observed in the borderline level (11%). The moderate level has the second lowest usage of absolutist terms, with 22%, while the severe category has the second highest usage of absolutist words, at 32%. Lastly, the extreme level is characterized by the highest frequency of absolutist words. Regarding the frequency of non-absolutist words, the severe level exhibits the lowest usage of such words (f=5, 18%), but both the borderline and moderate levels have an identical number of non-absolutist words (f=7, 25%). The severe level exhibits a utilization rate of 32% for non-absolutist terms. Thus, the written reports at this level have the highest number of non-absolutist words.

Clauses	***Single***		***Multiple***		**Total**	
	$\bar{x}$	**%**	$\bar{x}$	**%**	$\bar{x}$	**%**
Borderline	14	21	5	13	19	18
Moderate	9	14	9	23	18	17
Severe	26	39	14	36	40	38
Extreme	17	26	11	28	28	27
Total	66	100	39	100	105	100

Table 5. Mean Frequency and Percentage Distribution of the Use of Clauses

The data presented in Table 5 shows that the usage of single clauses is lowest among individuals with a moderate level of depressive symptoms (14%), followed by those with borderline depressive manifestations at 21%. The severe level ranks second highest in terms of the utilization of single clauses, accounting for 26%. The severe level exhibits the greatest quantity of single clauses employed in the written reports.

Languages	**Signs of Spoken Language**		**Sign of Figurative Language**		**Total**	
	$\bar{x}$	**%**	$\bar{x}$	**%**	$\bar{x}$	**%**
Borderline	5	8	0	0	5	7
Moderate	13	21	1	14	14	21
Severe	31	51	4	57	35	51
Extreme	12	20	2	29	14	21
Total	61	100	7	100	68	100

Table 6. Mean Frequency and Percentage Distribution of the Use of Languages

Table 6 displays the frequency and percentage of spoken and figurative language usage. For spoken languages, the borderline level corresponds to a minimal usage rate of 8%. The usage of spoken languages is least prevalent at the

extreme level, accounting for 20% of cases. Conversely, the moderate level exhibits the second-greatest usage of spoken languages, representing 21% of cases. The severe level exhibits the greatest number of spoken languages utilized in the written reports, with an average of 51%. In contrast, the data in the figurative language column reveals that the lowest level of usage is observed at the borderline level, with a 0% occurrence of figurative language. The moderate level ranks second to last, with a 14% usage of figurative language. The highest level of usage is found at the extreme level, with a 29% occurrence of figurative language.

Tenses	*Past Tense*		*Present Tense*		Total	
	$\bar{x}$	%	$\bar{x}$	%	$\bar{x}$	%
Borderline	4	17	17	16	21	17
Moderate	8	35	34	33	42	33
Severe	6	26	35	34	41	32
Extreme	5	22	18	17	23	18
Total	23	100	104	100	127	100

Table 7. Mean Frequency and Percentage Distribution of the Use of Tenses

The frequency and percentage distribution of the use of past and present tenses are displayed in Table 7. The borderline level exhibits the lowest usage at 17%, followed by the extreme level at 22%. The severe level shows a usage of 26%, while the moderate level has the most usage, averaging at 35%. In terms of the present tense column, the borderline level has the lowest utilization at 16%, followed by the extreme level at 17%. The moderate level comes next with the second-highest usage of present tenses, averaging at 33%. Lastly, the severe level has the highest number of present tenses used, averaging at 34%.

Aspect	*Continuous*		*Perfective*		Total	
	$\bar{x}$	%	$\bar{x}$	%	$\bar{x}$	%
Borderline	9	10	1	8	10	10
Moderate	44	49	2	17	46	45
Severe	22	24	4	33	26	25
Extreme	15	17	5	42	20	20
Total	90	100	12	100	102	100

Table 8. Mean Frequency and Percentage Distribution of the Use of Aspect

Table 8 displays the frequency and percentage distribution of the continuous aspect and perfective aspect. The data presented in the continuous aspect column indicates that the borderline level exhibits the lowest utilization of the continuous aspect, accounting for only 10%. This is followed by the extreme level, which demonstrates a usage rate of 17%. The severe level ranks next, with an average of 24%. The intermediate level exhibits the greatest quantity of continuous characteristics, with an average of 49%. The results indicate that the borderline level exhibits the lowest usage of perfective aspects, averaging at 8%. The moderate level follows with the second lowest usage, averaging at 17%. The severe level shows a higher usage of 33% of perfective aspects, while the extreme level demonstrates the highest usage at 42%.

5 Discussion

5.1 Macro Language Structures

A total of seven part of speech were analyzed in order to create or present a specific language patterns. These include pronouns, adjectives, adverbs, clauses, languages (figurative and spoken), use of tenses, and use of aspects. For the pronouns, first-person pronouns, such as me, myself, my, I, mine, etc., appeared to have the highest mean frequency among the other three types of pronouns. The increase in frequency of first-person pronouns usage are linked to the excessive self-focus and isolation from others that clinically depressed individuals do. Consistent with the findings of Rude et al., (2004) the present study's participants extreme usage of first-person pronouns were a reflection of Beck's cognitive model (1961) and Pyszczynski & Greenberg (1987) concept of self-regulatory perseveration and depressive self-focusing style. Individuals suffering from clinical depressive symptoms or clinical depression often exhibit heightened self-absorption and are prone to social isolation. In terms of the adjective and adverbs usage, negative adjectives and absolutists adverbs had the higher mean frequency than positive adjectives and non-absolutists adverbs. Al-Mosaiwi & Johnstone (2018) argued that the heighten used of absolutists adverbs and negative adjectives or words were a specific marker of anxiety, depression, and suicidal ideation. This implies that individuals who experiences clinical depression manifestations are likely unable to see any sense of hope. Moreover, single clauses had a more dominant amount of mean frequency due to reduced utterance by depressed individuals. The mean frequency of the spoken languages is higher than the figurative language. Suggesting that they were more expressive in their writing process. Corroborated with the findings of Smirnova et al. (2018), present tenses also appear to have a higher mean frequency than past tenses.

Lastly, regarding aspects used, the continuous aspect seems to have a greater average frequency.

5.2 Language Patterns with Varying Levels of Depressive Symptoms

The findings of this study aligned with the anticipated hypotheses. The frequency of first-person pronouns steadily rose from the borderline level to the moderate level, and ultimately reached the severe level. It is shown that individuals with clinical depressive symptoms tend to focus more on themselves. Ilardi (2009) states that individuals with clinical depression experience a pronounced inclination to withdraw from social interactions and become emotionally unresponsive. This phase is known as isolation, in which a person experiencing depression deliberately separates themselves from their surroundings. This leads to a higher frequency of self-centered conversation and self-focus, rather than focusing on the people around them. The outcome of the isolation phase pertains to the concept of self-centeredness, which involves the concentration on one's own self and the disregard for the individuals in one's vicinity (Beck et al., 1961; Pyszczynski & Greenberg, 1987). For the extreme level, the number experienced a dramatic decline from the severe level (which has the highest number utilized for first-person pronouns) which suggests the concept of depersonalization. Žikić (2009) explains that the patients suffering from severe/extreme depression and depersonalization experienced mostly, with nearly all patients reporting feelings of melancholy, insomnia, and reduced energy levels. It is the sensation of disconnection from one's own self and the environment and entails a lack of concern for both one and others. Furthermore, the participants utilized a limited quantity of second and third person pronouns. The lack of any individual who could be accurately characterized as you, your, and yours, etc. data might suggest the experience or absence of a figure and social support that they can depend onto.

The written reports were predominantly filled with negative words. Individuals diagnosed with clinical depression tend to employ a greater number of negatively valenced or emotions words, such as grief, fraud, and victim, in their written language (Al-Mosaiwi & Johnstone, 2018; Rude et al., 2004; Lyons et al., 2018; Stirman & Pennebaker, 2001; Zimmerman et al., 2016). Furthermore, while comparing the first three levels of clinical depression, it was discovered that there is a progressive increase in the usage of negative words as the level of depression rises. Depressed individuals tend to employ a greater number of negative words as their level of depression worsens. However, according to the data, there is a significant drop in severity, indicating a potential association with depersonalization. In line with the existing literature by Al-Mosaiwi and Johnstone (2018), the present study similarly demonstrates an increased usage of absolutist adverbs in the written reports of the participants. Furthermore, while considering the comparison of the severity levels of clinical depression among the individuals. Data indicates that when the severity level increases, the usage of absolutist adverbs becomes more prevalent, implying a lack of perceived hope or assistance from others.

Furthermore, Smirnova et al. (2018) established that single-clause sentences are more prevalent than multi-clause ones. Pennebaker et al. (1997) also observed a higher frequency of causation phrases in cases of depression, particularly in compound-type sentences rather than complex-type multi-clause sentences. As per the discovery of widespread use of single-clause sentences, these characteristics of phrase usage indicate a preference for descriptive cognitive methods rather than analytic ones (Smirnova et al., 2018). Furthermore, when comparing the levels of depressive symptoms, it was found that the borderline level exhibits a larger average frequency and percentage compared to the moderate level. Due to the peak of interruptions occurs at the borderline level. It reaches its highest point at a severe level, indicating that it has the highest number of predominantly utilized single clause sentences, reduced utterances, and unfinished phrases. These linguistic patterns align with the language flow dynamics seen in earlier studies on clinical.

Smirnova (2018) also found that persons with mild depression had longer written responses, employed a descriptive rather than analytic writing style, and displayed indications of using spoken and figurative language. The researchers' data demonstrates a positive correlation between the severity of depressive symptoms levels and the respondents' increasing expressiveness in writing, as they progress from borderline to severe depression. The prevalence of spoken and metaphorical languages significantly decreases during severe depression, indicating that rumination and depersonalization might be a key

contributing factor. Rumination is the inclination to excessively dwell on past events and experiences that have caused grief.

The research indicates that the use of present tense dominates past tense. Contrary to the literature that suggests individuals with mild depression frequently employ the past tense (Smirnova et al., 2018). Lastly, in terms of aspect use, it was noted that there was a positive correlation between individuals with clinical depressive symptoms and their tendency to employ continuous words (living, making, hurting). The utilization of the continuous aspect is associated with the utilization of the present tense. Proposing the notion that individuals with clinical depressive symptoms, who have a tendency to excessively dwell on the present, experience events as persistently ongoing. When comparing different levels, the borderline level exhibits the lowest utilization of the continuous aspect, while the moderate and severe levels of clinical depression represent the highest degree of continuous aspect, indicating that individuals in these levels engage in persistent rumination and perceive certain thoughts as ongoing actions. As depression symptoms intensifies, the frequency of using the continuous aspect decreases, possibly due to depersonalization.

6 Conclusion

In general, the results indicates that in terms of the overall macro structures, individuals with depression showed a high usage of first-person pronouns, negative adjectives, absolutist adverbs, single clause sentences, spoken languages, present tenses, and continuous aspects.

A consistent pattern was identified when individuals were grouped based on their levels of clinical depression symptoms. The analysis revealed a predominantly positive correlation trajectory for most of the studied components of speech. As the severity increases, the frequency of using pronouns, adjectives, adverbs, and other similar linguistic elements also rises. However, the subjects with severe depressive symptoms also exhibited alterations in their linguistic patterns. Research data suggests that as it approaches an extreme level, the frequency diminishes. Proposing that rumination and depersonalization can be considered a valid explanation for this phenomenon. Furthermore, this study proposes that understanding and distinguishing between language patterns of clinically depressed individuals with different levels of clinical depression could potentially improve mental healthcare, combat stigma, and potentially create a language screening tool for the disorder, especially in the Orient.

7 Recommendations

The present research study possesses several limitations and offers recommendations that could potentially assist future researchers in the domains of clinical psychology and languages Future investigators must evaluate and consider equal representation of aspects such as age, gender, and levels of depression among the participants in order to maintain a balanced representation. To obtain more precise and reliable results, utilizing software to analyze written or spoken reports can be essential in comprehending and differentiating language patterns. Furthermore, providing more comprehensive explanations or debates regarding the factors influencing the fluctuating nature of certain aspects of speech, as addressed in the current study, could enhance our understanding in this topic. Concentrating on a specific level of sadness throughout research can assist future researchers in perhaps elucidating these fluctuating patterns. It is also recommended to use Thematic Apperception Test (TAT) as a tool for identifying language patterns as it can help researchers to unveil the unconscious processes of the participants and proposed a more holistic approach in terms of developing a treatment plan. Additionally, the analyzation of comparison of language patterns among different clinical depressive symptoms must also be taken into account. As the present study simple observed, described, and explained the differences of language structures, future researchers may focus or utilized the use of a statistical procedure to prove a more statistical valid result.

Lastly, as the current study employed the English language as a criterion for evaluation, it is highly recommended to either adapt or develop a localized version of the written reports. Implementing this approach will enhance the accessibility and availability of linguistic patterns as a screening tool.

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