



Short Report

A Short Report on the English Language Analysis of the Speech of a Nigerian Patient with Schizophrenia During a Medical Interview

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ABSTRACT

Language abnormalities are commonly associated with and diagnostic of a brain disorder like schizophrenia. Attempts have been made in the past to characterize the speech abnormalities in schizophrenia, but no known available research has been conducted in Nigeria where the English language is recognized as the official language. This study was designed to examine the discourse during a medical interview of a Nigerian patient with schizophrenia. A clinical interview between a schizophrenic patient and a doctor was carried out at the Mental Health Department of the University of Benin Teaching Hospital, Benin City, Nigeria. The conversation was tape-recorded, thereafter transcribed and analysed. The findings revealed syntax errors in turn-taking, mistakes in pronunciation, grammatical and phonological errors. The data confirms literature elsewhere and suggests a role for language analysis in the evaluation of persons with schizophrenia.

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Introduction

Schizophrenia is a complex disease that is characterized by disorders of the thought processes which manifest as disorganized behaviour and/or speech [1, 2]. Since language mirrors the thought, schizophrenia is often associated with language abnormalities [3]. Speech disturbances are prevalent, and thus recognized as one of the diagnostic criteria for schizophrenia [4, 5]. Researchers, though not proven, have argued that the gene that causes schizophrenia is responsible for language [6]. Also, the disease is thought to have an impact on the brain region that regulates language production [4]. This may lead to widespread deficits in comprehension, production, attention, and cerebral lateralization of language [7].

As a disorder in which thought is dysfunctional, individuals with schizophrenia may show a broad range of thinking anomalies. This may include, flight of ideas (switching topic mid-sentence or inappropriately), derailment (a pattern of spontaneous speech that tends to slip off track), thought blocking, word salad (sentences not making sense i.e. confused or unintelligible speech), word approximation,

neologism (non-existing or new words) metonyms (use of words in an idiosyncratic or bizarre manner) and tangentiality (response to a question in an oblique or irrelevant manner) [4, 8, 9]. From the linguist perspective, disorganization experienced in schizophrenia has been described in abnormalities of semantics, syntax and pragmatics. It is therefore not uncommon to see them have restricted vocabulary, perseveration of words, aberrations in subject/verb compatibilities with sound grammatical structure, and impairments in pragmatic communication and comprehension [10-12].

The Rationale for The Study

Language is vital for communication which in turn is essential to facilitate social interactions. For example, the process of a medical interview in itself requires communication through which diagnosis and treatment are made [13]. When the rules governing language are not followed, there will be a breakdown in communication. The conversation may not only be disorganized and incomprehensible in schizophrenia, but it may also be frightening to others. Thus, the gravity of damage in the discourse of schizophrenia, need to be examined.

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Moreover, Nigeria is a country with multi-ethnic groups of various languages, though, the English language is officially accepted as the lingua franca. In an environment where English is the second language (ESL), this may further add to the impediments in communication experienced by persons with schizophrenia, who may have their language already distorted.

Therefore, the research aimed to analyze the English language of a patient with schizophrenia carried out during a conversation with a doctor. It examined the errors in the conversational response of the patient and identified prominent speech impairment.

Methodology

Approvals to carry out the study was given by the department of English of the University of Benin, and the authority of the University of Benin Teaching Hospital (UBTH), Benin City. The primary data for this study was gotten from an audio recording of the interview between a psychiatrist (2nd author) and a fifty-two-year-old female patient (forthwith referred to as patient G) at the Mental Health Department of UBTH. Patient G, who was married and has a tertiary level of education, was diagnosed to have schizophrenia by a consultant psychiatrist using the 10th edition of the International Classification of Disease [14]. She was interviewed a few days after admission into the ward, hence she was yet to recover from her illness. Recordings obtained during the interview was transcribed and other non-linguistic features observed in the patient’s response were expunged. Also, excluded from the conversation was the language which reflected delusional thinking (falsity in statements that are fixed).

Results and Discussion

From the findings of this research, the following were identified in the conversation of the schizophrenic patient:

I Syntax Errors in Turn-Taking

Patient G could not link an-on-going conversation or utterance with an earlier one. From the nature of the patient’s speech, it was observed that she could not hold a coherent stretch of utterance without first uttering some unintelligible words as though she was answering to an inaudible voice. During the ‘turn taking’ interaction, it was observed that the thinking and speaking of the patient were done slowly and repetitively. The patient’s ‘syntax’ and ‘grammar’ made the speech a disjointed one. Hence, the patient could not distinguish between what is said and what is relevant to the speech situation. Her words were produced correctly, however, the combination of it to create elements of larger structures and sentences, which in turn, form elements of discourse was disjointed. Although patient G could not understand the meaning of what was asked sometimes, it does not seem to explain fully the deficits noted. As soon as the question was explained, the understanding comes; as though her memory needed prompting.

II Errors in Pronunciation

Though the normal speaker of English in an ESL environment may make occasional pronunciation errors while interacting, such errors are not

likely to be similar to that, heard from a schizophrenic patient. The following are examples to show some mispronounced words by patient G during the course of interaction with her. Table 1 shows that the patient omitted letters in English words in the initial position. For example, the ‘L’ in ‘Lagos’ and the ‘A’ in ‘Amen’. There is also a deletion of consonant letters in ‘Drip’ and ‘new’.

Table 1: Mispronounced words.

| S/N | Words | Mispronounced Word |
|-----|--------|--------------------|
| 1. | Lagos | Egos |
| 2. | Amen | Men |
| 3. | Sunday | Soday |
| 4.. | Drip | dip |
| 5. | New | Nu |

III Grammatical Errors

It was also observed that at the various stages in the interview between patient G and the doctor, there were errors in grammar. The lexical items reflected as jargons and the grammatical structure was without any connection from one subject to another, with an interweaving of superfluous phrases and incidental thoughts. Also, there was sometimes a complete loss of connection between ideas.

IV Phonological Errors

In the data collected, we see regularity in the substitution process in patient’s G speech. For example, /t/ was substituted for /r/ and we see that both sounds are alveolar sounds, although, /t/ is plosive, while /r/ is an approximant. The process of substitution was also absent where the alveolar fricative /s/ was substituted for the plosive /t/ with which it shares some place of articulation (alveolar). The bilabial plosive /b/ was substituted for /m/ which shares the same place of articulation.

A pattern was also noticed that the substituted sounds shared places of articulation with the substitutes, while the manner of articulation of the substitutes and the target sound was the same. Patient G speech also showed some mis-articulations, which were due to the addition of speech sounds to some words. For example, as shown in (Table 2), she inserted the alveolar liquid /l/ into the two words – ‘just’ and ‘case’.

Table 2: Misarticulated words.

| Word | Patient G | Normal |
|----------|-----------|----------|
| Just | Julst | /dʒʌst/ |
| Case | ceiIse | /kels/ |
| Daughter | ɔuter | /dɔ:təʔ/ |

The pattern in the pronunciation of the above shows a combination of the process of substitution, deletion/omission and insertion, for example, patient G deleted the initial vowel word in /daughter/←/ɔuter/.

Conclusion

We have focused more on the schizophrenic pronunciation and less on the comprehension problems of a speaker of English as a second language. It has been shown that the patient exhibited many unusual

pronunciation of English words as well as some lack of comprehension. In accordance with the characteristics of a schizophrenic, patient G's utterance contained some mispronunciation which has been found to be evidence of articulation disorder. The speech of patient G with the doctor showed that she suffers from what has earlier been stated in previous research work [12].

Generally, speech abnormalities in schizophrenia have been explained to be caused by the inability to recognise linguistic information correctly. This deficiency would prevent patients from regulating the abnormal speech they may occasionally produce [15].

Limitation

English is a second language of the patient and accommodation should be given for errors with the language, though the gross deficiencies reported in this case is not expected from a literate person who has attained tertiary education. It would be helpful if the patient's baseline proficiency in the English language is known; so that a comparison can be made between illness and stability states. Any difference(s) that exist in speech can be easily linked to the schizophrenic disorder. The cross sectional-snapshot design of the study limit making a definite conclusion on the impact of the illness on language. The current study design lack statistical power to attribute altogether the identified deficiencies in the English Language to the schizophrenic illness. Another limitation has been pointed out by Stephane and her colleagues in their study using speech samples like this. They noted that assessment of language abnormality "only partially reflect processes involved in speech generation"; there is always the speaker's assumption of the understandability of the listener [15]. So, at the sentence level, it could be misleading to conclude on surface observation.

Recommendation

It is recommended that in similar future studies, patients are followed up to obtain a sample of speech after treatment. Analyses and comparison of both speech samples would be more informative in reaching a conclusion on the effect of schizophrenia on language. Also, a case series of several patients are suggested for a survey in the future as this can reveal much in terms of the pattern of language deficits. Also, where possible, recommending speech therapy as part of the holistic treatment of schizophrenia is suggested because it is a defining characteristic of the disorder [4]. Since impairment in comprehension, which was not a focus in this study exist, it is advisable that interview involving a patient with schizophrenia is made simple to aid communication [9]. Finally, patients with schizophrenia may sound queer, it is advocated that those in direct contact with them show them extra sympathy in trying to understand them.

Conflicts of Interest

None.

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