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A Pragmatic Analysis of Clinicians' Written Discourse in Medical Communication within Buea Municipality

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ABSTRACT

Patient-centred care is widely regarded as a cornerstone of effective healthcare delivery because it positions patients as active participants in decisions concerning their health and treatment. Central to this collaborative model is clear and accessible communication, including the written discourse found in medical reports and records. However, the intended audience of such written communication often remains ambiguous, raising concerns about whether these texts adequately serve patients' informational needs or are primarily oriented toward other healthcare professionals. This study adopts a pragmatic approach to examine clinicians' written discourse in medical communication, with particular attention to audience design, clarity, and communicative intent. Drawing on a dataset comprising 50 medical reports, as well as interviews with 75 clinicians and 85 patients in the Buea Municipality, the study employs corpus-based analytical techniques to investigate linguistic patterns, lexical choices, and syntactic structures in clinical writing. The analysis reveals that clinicians' written discourse simultaneously targets multiple audiences—both fellow healthcare providers and patients resulting in hybrid texts that often compromise patient comprehension. The findings further indicate that the frequent use of specialized terminology, dense syntactic constructions, and implicit assumptions of shared professional knowledge significantly limits patients' ability to fully understand their medical information. From a pragmatic perspective, this dual audience orientation creates communicative gaps that undermine the principles of patient-centred care and informed consent. The study therefore argues for a clearer distinction in audience targeting within medical documentation, alongside the adoption of plain language strategies when addressing patients directly. By highlighting the linguistic and pragmatic features that shape clinicians' written communication, this research contributes to ongoing discussions in medical discourse analysis and underscores the critical role of effective communication as both a clinical and therapeutic tool. Improving the accessibility of written medical discourse has the potential to enhance patient understanding, treatment adherence, and overall healthcare outcomes.

Résumé

Les soins centrés sur le patient sont largement reconnus comme une pierre angulaire de la prestation efficace des services de santé, car ils positionnent le patient comme un acteur actif dans les décisions relatives à sa santé et à son traitement. Au cœur de ce modèle collaboratif se trouve une communication claire et accessible, notamment à travers le discours écrit présent dans les rapports et dossiers médicaux. Cependant, le public cible de cette communication écrite demeure souvent ambigu, ce qui soulève des interrogations quant à savoir si ces textes répondent réellement aux besoins informationnels des patients ou s'ils sont principalement destinés aux autres professionnels de santé. La présente étude adopte une approche pragmatique pour examiner le discours écrit des cliniciens dans la communication médicale, en mettant un accent particulier sur la conception de l'audience, la clarté et l'intention communicative. S'appuyant sur un corpus composé de 50 rapports médicaux, ainsi que sur des entretiens réalisés auprès de 75 cliniciens et 85 patients dans la municipalité de Buea, cette recherche mobilise des techniques d'analyse de corpus afin d'examiner les schémas linguistiques, les choix lexicaux et les structures syntaxiques du discours clinique. Les résultats révèlent que le discours écrit des cliniciens cible simultanément plusieurs publics — à la fois les professionnels de santé et les patients — produisant ainsi des textes hybrides qui compromettent souvent la compréhension des patients. L'étude montre en outre que l'usage fréquent de terminologies spécialisées, de constructions syntaxiques complexes et d'hypothèses implicites de connaissances partagées limite considérablement la capacité des patients à comprendre pleinement les informations médicales qui leur sont fournies. D'un point de vue pragmatique, cette double orientation vers différents publics engendre des lacunes communicationnelles qui vont à l'encontre des principes des soins centrés sur le patient et du consentement éclairé. L'étude plaide ainsi pour une distinction plus claire des publics cibles dans la rédaction des documents médicaux, ainsi que pour l'adoption de stratégies de langage simplifié lorsque les patients sont directement concernés. En mettant en évidence les caractéristiques linguistiques et pragmatiques qui structurent la communication écrite des cliniciens, cette recherche contribue aux réflexions actuelles en analyse du discours médical et souligne le rôle crucial de la communication efficace en tant qu'outil à la fois clinique et thérapeutique. L'amélioration de l'accessibilité du discours médical écrit pourrait ainsi favoriser une meilleure compréhension des patients, une meilleure observance des traitements et, plus largement, de meilleurs résultats en matière de santé.

INTRODUCTION

The patient-centred approach to healthcare has increasingly attracted scholarly attention, particularly among researchers who recognize communication as central to the relationship between clinicians and patients. This perspective aligns with the principles of medical ethics, which obligate clinicians to provide patients with complete and comprehensible information regarding their health status, as well as to obtain informed consent before any medical intervention. Within this framework, communication is not merely supportive of treatment but constitutes an essential component of effective healthcare delivery. This study investigates the intended audience of clinicians' written discourse within the Buea Municipality. The recurring observation that patients often consult their medical reports out of curiosity suggests a strong desire to understand the information contained in them. At the same time, healthcare delivery operates as a complex chain involving multiple professionals, including specialists, nurses, laboratory technicians, pharmacists, and other auxiliary staff. As noted by Enrico Coiera (2006), the effective functioning of this chain depends heavily on accurate and efficient information transfer across different levels of care. Consequently, clinicians often employ specialized language suited to their professional community, which may not always be accessible to patients.

In an era that emphasizes patient-centred care, it is imperative that clinicians not only communicate verbally with patients but also present written medical information in a manner that is clear and accessible. Effective communication plays a crucial role in shaping patients' understanding of their conditions, their adherence to treatment, and their overall perception of healthcare quality. Indeed, communication itself can serve a therapeutic function by fostering trust and confidence between patients and healthcare providers. However, a close examination of medical reports reveals an important ambiguity: it is often unclear whether clinicians write primarily for other healthcare professionals or for patients. While the need for technical precision justifies the use of specialized terminology among professionals, such language may hinder patients' comprehension. This tension raises critical questions about accessibility, audience design, and the ethical obligation to ensure that patients understand their own medical information.

Against this backdrop, this study seeks to analyse the lexical and syntactic features of clinicians' written discourse, identify its intended audience, and assess its accessibility to patients. It also examines the implications of these linguistic features for the quality of healthcare delivery. The findings are expected to inform strategies for improving communication between clinicians and patients, particularly through the adoption of clearer and more audience-sensitive language. Furthermore, the study underscores the importance of incorporating communication training—such as English for Specific Purposes (ESP) into the education of healthcare professionals, given that effective communication is as critical as clinical competence in patient care.

LITERATURE REVIEW

The study of medical discourse has attracted considerable scholarly attention, particularly in relation to its linguistic complexity and its implications for patient care. Early work by Robert Fortuine (2000) provides a detailed account of the etymology of medical terminology, highlighting its roots in Latin and Greek. While this work offers valuable historical insights into the development of medical vocabulary, it does not examine how such terminology functions in real-life communication contexts. Similarly, Bozena Dzuganova (2002) notes that although medical terminology has evolved over time, much of it still retains its classical origins, contributing to its complexity and limited accessibility for non-specialists.

Empirical studies have also examined patients' understanding of medical language. Lerner et al. (2000) investigated whether patients in emergency departments in the United States could comprehend commonly used medical terms. Their findings revealed that patients were only able to correctly interpret about half of the terms presented to them, suggesting a significant gap in understanding. The study emphasizes the need for clinicians to simplify their language and ensure that even commonly used terms are clearly explained to patients.

Other scholars have focused on broader communication challenges in healthcare settings. Ha and Longnecker (2010) identify multiple factors contributing to ineffective doctor–patient communication, including work-related stress, language barriers, and insufficient communication training. Their findings suggest that many patient complaints are linked more to communication issues than to clinical incompetence, underscoring the importance of effective interaction in healthcare delivery. Similarly, Kattel (2010) highlights the limited attention given to communication skills in healthcare systems, noting that both patient-related factors (such as literacy levels) and institutional constraints can hinder effective communication.

In the Cameroonian context, Chia (2001) provides a sociolinguistic analysis of communication in healthcare settings in Yaoundé. The study reveals significant

language barriers, particularly between Anglophone patients and Francophone doctors, as well as widespread use of technical jargon that leads to what the author describes as "communication blackout." While this study identifies key barriers to communication, it does not provide a detailed linguistic analysis of the specific features that contribute to these breakdowns. The present study builds on these existing works by focusing specifically on the linguistic and pragmatic dimensions of clinicians' written discourse. Unlike previous studies that primarily examine spoken interaction or general communication barriers, this research analyzes the lexical and syntactic structures of written medical reports to determine their intended audience and level of accessibility. In doing so, it fills an important gap in the literature, particularly within the context of the Buea Municipality.

The study is further grounded in two theoretical frameworks: the Communication Accommodation Theory (CAT) and Systemic Functional Linguistics (SFL). CAT, developed by Howard Giles, explains how individuals adjust their communication styles based on their audience, while SFL, proposed by M.A.K. Halliday, emphasizes the role of context and function in meaning-making. Together, these frameworks provide a robust basis for analysing how clinicians construct their written discourse and how effectively it meets the needs of its intended audience.

In this era of patient-centred approach to healthcare, clinicians would demonstrate a greater sense of commitment to patients if they do not only speak to them but also report their medical information in medical booklets in a way that is accessible to them (patients). Effective communication between clinicians and patients is as important as the treatment process itself, given that clinicians are responsible for the biological, psychological, behavioural and social aspects of their patients (Zolnierek, Kelly B. Haskard, and M. Robin DiMatteo, 2009). In fact, effective communication can itself be psychologically therapeutic. It determines not only the patients' perception of the service quality they receive, but also helps in building patients' confidence in the medical staff who administer treatment to them.

A perusal of patients' medical report makes it difficult to ascertain to whom clinicians write. While clinicians are expected to transmit written information among themselves from one service to another in order to relay patients' medical situation in the most accurate manner, patients are also curious to know what information is contained in their medical reports. Medical ethics explicitly compels clinicians to give patients full information (written, spoken or otherwise) concerning their treatment. Where communication is effective, the patient fully understands why, how and for how long they need to take (a) particular medication (s). Clinicians' written communication is, from observation, too technical and professional for the common man (the patient) to comprehend. This paper seeks to identify and analyse the lexical and syntactic elements of medical discourse, determine who their intended audience is, find out how accessible these features are to patients, and identify their implication on the service delivered to patients.

The findings from this paper will help healthcare personnel in strategizing to effect positive communication with patients, through the awareness of the diction and other structures used when communicating with them. Such a strategy will help patients to have a better understanding of information contained in their medical reports if doctors write in the appropriate language. This paper will also be helpful to institutions that train healthcare service providers who need to understand that training healthcare staff in effective communication with patients is as important as any other aspect of service delivered to patients. The institution of English for Specific Purposes (ESP) in the formation of medical and clinical staff will be a categorical imperative.

The exploration of healthcare discourse has garnered significant attention in recent literature, with studies highlighting its intricate nature and implications in effective patient management and cure. Robert Fortuine (2000) gives a profound analysis of the etymology of a plethora of medical terminologies and affixes. The work acknowledges that many medical terminologies originated from Latin and Greek. Hence, the period from 1450-1700 which covered the Elizabethan period, through the Renaissance period to the early Scientific Age witnessed an intense emergence of new words in medical science as discoveries in anatomy, physiology, pathology and obstetrics brought with them new words from Latin and Greek. The early modern era (1850-1950), however, witnessed a sharp decline in the use of Latin and Greek in medical discourse. Further advancements in urology (by 1910) and surgery (especially with the introduction of anesthesia and hormones) no longer came with them new Latin and Greek words. This study complements the work of Bozena Dzuganova (2002) who asserts that on a larger measure, English medical terminology developed from Medieval Latin expressions with only few from Anglo-Saxon origin, except recently where many new medical words are actually of English origin.

E. Brooke Lerner, Dietrich V.K. Jehle, David M. Janicke and Ronald M. Moskati (2000) carried out a study to determine if patients in the Emergency Department in some hospitals in the United States of America understood common health terms used by clinicians. Two hundred and forty nine patients were asked whether six pairs of terms had the same or different meaning and their answers were scored on six (6). Using multiple linear regression analysis to assess possible relationships between scores and hospital site, education level, age, predicted house income and sex, the study revealed that the patients, on average, could

identify analogous terms for only half of the word pairs used in the survey. The study recommends that clinicians need to be especially conscious of the terminology they use with their patients who are young and those who are less educated; and that even commonly used vocabulary should be explained to all patients, especially when explaining procedures or giving directives.

Jennifer Ha & Nancy Longnecker (2010) recognize the fact that ineffective communication may arise from several factors: work stress on healthcare personnel, phobia and psychological trauma of patients, non-mastery of communication skills, hospital policies, internal noise, language barrier and cultural barriers. Using the survey method, the authors sought to investigate the benefits of doctor-patient communication in making diagnosis and ultimately, enhancing treatment. The study reveals that most complaints received from patients about doctors are related to issues of communication, not clinical competency. The study also recommends various strategies for improvement of patient-doctor communication which include, *inter alia*, the enhancement of collaborative communication and conflict management and communication training for healthcare personnel.

S. Kattel (2010) investigates both the training in communication given to medical doctors, and the degree of effectiveness of communication between doctors and patients at the Tribhuvan University Teaching Hospital, Kathmandu, Bangladesh. His qualitative-quantitative research method using both questionnaires and open-ended questions enabled him to make adequate investigation into his specific research objectives which were: to determine the status of communication; to determine whether the organizational structure and procedure affect doctors' communication with patients; to determine what effect demographic variables of patients have on communication in the doctor-patient relationship; and to examine if patients play an active role in interacting with doctors. His findings reveal that good doctor-patient communication has not received much attention in the study of health care service delivery in Nepal. This result was consistent with patient's age, gender, occupation and education. It also revealed that patients' low literacy and health awareness inhibited them to take control of their health. Doctors' low communication skill and lack of support from hospital management was another factor that inhibited poor communication.

E. Chia (2001) carried out research on how healthcare providers communicate with the beneficiaries of their services in a complex multilingual setting, with focus on health facilities in Yaounde, the political capital of Cameroon. He made use of two sets of sociolinguistic questionnaires (one for doctors and another for patients) as the main form of data collection, and sporadic research observations as another. The findings indicate that there are three times less Anglophone doctors than Francophones and that Anglophone patients find it extremely difficult to communicate with doctors because of language barriers, since a majority of the Francophone doctors do not express themselves in English. A sizeable number of physicians use language in patient consultation in which they have low proficiency. 60% of doctors in his sample (mostly Anglophones) are forced by circumstances to consult in a language (French) which is only their third best – a pointer to the possibility of frequent communication failures.

Also, 76.9% of the doctors feel that the patients do not understand them when they speak or ask questions. This was highly attributed to the use of technical jargons by doctors, a situation that resulted in "communication blackout" (139). This was noticeable not only when an Anglophone patient meets a Francophone doctor and vice versa, but even among 'helper interpreters' who spoke the same language within that healthcare context. At the level of the pharmacy, the researcher discovered that there was total lack of communication because they do not feel obliged in any way to explain anything to the patients about the drugs they had to consume. Chia (2001) recommends that practicing doctors should be made aware of the importance of efficient communication by limiting their professional jargon and the necessity for appropriate language in patient consultation. This paper uses two theories: the Communication Accommodation Theory (CAT) propounded by Howard Giles in 1975 and the Systemic Functional Linguistics Theory by Michael Alexander Kirkwood (MAK) Halliday.

Ali Elhami (2020) contends that Giles' CAT started in the 1970's as Speech Accommodation Theory (SAT) to describe how people changed their accent in order to adapt their speech to suit their interlocutors. Later on, the focus of SAT included other aspects of speech such as pronunciation, pauses, utterance length and speech rate, and hence it came to be what is today known as CAT. Essentially, the function of CAT is to examine strategies by which speakers adjust their communication to suit a particular context for various purposes. Such adjustments may be done consciously or unconsciously by the speaker, and may take either verbal, non-verbal, or both forms. This adjustment may take three principal forms, which Marko Dragojevic, Jessica Gasiorek and Howard Giles (2016) describe as adjustment strategies: Convergence, Divergence and Maintenance.

Convergence is viewed by the above author as a strategy by which a language user adjusts their communicative behavior to be similar to that of another user, while divergence is a strategy by which a language user adjusts their communicative behavior to be dissimilar to another users', Maintenance, on the other hand, refers to sustaining one's "default" level of communication, without adjusting for others.

Petronio, Sandra, Naomi Ellemers, Howard Giles and Cynthia Gallois (1998) believe that Convergence and Divergence can each take multiple forms depending on the social value, degree and modality of the behavior. Upward convergence may take the form of adjusting one's communication from a less to a more prestigious accent or variety, while Downward adjustment may take the form of shifts towards a less prestigious, or even stigmatized, variety or accent. An example of upward convergence may take the form of a non-standard speaker trying to match the accent of a native speaker while downward convergence may take the form of a native speaker trying to use a non-standard vocabulary when speaking with a non-native speaker for purposes of intelligibility. To further illustrate this point, a native speaker may use the word 'pear' to refer to the standard 'avocado', because he/she understands that usage among Cameroonian users of English.

While unimodal shifts refer to shifts on a single dimension of communication such as accent only, multimodal shifts refer to shifts on multiple dimensions simultaneously, such as accent, speech speed and posture. Partial adjustment may take the form of a speaker who initially or normally speaks 200 words per minute makes an effort to match up with his interlocutor who uses 250 words per minute (full convergence). If such a speaker can increase his speed to only 220 words, then we have a situation of partial convergence because he has been able to only partially meet up with the speed of his interlocutor. In the same vein, code mixing is an exhibition of partial divergence while a change from one language to an entirely different one in the course of a communication act is deemed an instance of total divergence. Short term adjustments are those adjusted styles that are short-lived while long-term adjustments are sustained and occur repeatedly over multiple interactions during communication.

A vital component of CAT is audience assessment, which Gasiorek refers in Giles (2016) as audience design. This refers to taking one's audience into account when designing one's speech or communication. The researcher quotes Allan Bell's (1984) view that changes in one's communicative style may be either reactive or proactive (the initiative and responsive dimensions), which greatly determine the degree of intelligibility and social meaning of the communication. Miller et al. (2017) simply define audience analysis as a process in which one examines who one's audience members and how to best connect one's beliefs with them. Thus, according to Wolfgang Iser (2000), audience-related writing is to a large extent conditioned by what the writer assumes to be adequate, beneficial, opportune and necessary for one's target audience.

Josh Miller, Lawler Mcdonough, Megan Orcholski, Kristin Woodward, Lisa Roth and Emily Mueller (2017) distinguish between literal audience and target audience. While the literal audience refers to anyone who hears a given message, the target audience is that person or group of person whom the message was actually intended for, and they are those intended to be impacted by that message.

Yeonsuk Cho & Ikkyu Choi (2018) opine that paying attention to the needs of the audience directly affects the writer's decision on the content and quality of their writing. To this effect, the diction and background information are all affected by, and determined by, the audience. In fact, if we understand that we not only put meaning into what we communicate but that meaning is also made out of what we communicate, then there is a serious need to communicate only what we think our audience will understand. This entails making a valuable consideration of the sociocultural aspect of the context of communication. Therefore, clarity is the cornerstone of every writing given that it is not just word number or word choice but word location (Lorelei Lingard, 2022).

The next theory used in this paper is the Systemic Functional Linguistics (SFL) formulated by Michael Alexander Kirkwood (MAK) Halliday in 1961, and later developed by other linguists throughout the 1960's. According to Matthiessen & Halliday (1997), Systemic Functional Linguistics focuses on the function of language rather than its structure. This is the core difference between SFL and transformational grammar which focuses on language structure. Halliday believes that meaning can be got by analyzing the context of communication, rather than focusing on the deep structure of its linguistic components. This involves analyzing the context of communication which can be either written or oral (Wael Abdulrahman Almurashi, 2016), and how it is utilized in social settings as a semiotic resource to achieve specific purposes in making meaning within specific contexts.

SFL contrasts sharply with the tradition of Transformational Generative Grammar (TGG) of Noam Chomsky. While Chomsky's TGG studies language through form by concentrating on its deep structure through the institution of grammatical rules and how language is/should be structured, Halliday's SFL is concerned with how meaning is acquired in language through linguistic and paralinguistic features. While TGG is concerned with "standardness", SFL is concerned with varying contexts of language use, with focus on the writer's purpose rather than on the nature of the linguistic structure. This is what makes SFL the most context-sensitive, as opposed to other concepts like psycholinguistics, cognitive and behavioural theories of language and generative grammar. Chomsky believes that meaning should be studied independently from its form but Halliday insists that meaning and function should determine the form that any language should take (Bavali & Sadighi 2008). SFS describes how language achieves three functions in constructing meaning: the ideational metafunction constructs ideas and experiences; the interpersonal metafunction enacts

social roles and power dynamics; and the textual metafunction manages the flow of information to make extended discourse coherent and cohesive (Meg Gebhard & Kathryn Accurso, 2020).

Of most importance to the study of SFL are what (Almurashi, 2016) qualifies as the key elements by which a text is analysed: Context, Semantics, Lexico-grammar and Phonology. Context is the integral element in the overall meaning-making process, since it is at the core of all cultural, socio-cultural and ideological considerations of all communication endeavour. Without context, all lexical and syntactic structures become mere linguistic decorations. Within this concept of context are three basic components that are inherent in the understanding of SFL, otherwise known as the context of situation, as illustrated by Matthiessen & Halliday (1997):

A – Field: It gives an indication of the substance, the subject matter or topic that is being discussed

B – Tenor: It indicates the participants involved in the communication and the relationship between them

C – Mode: It gives an indication of what part the language is playing in the interaction and what form it takes. This is also known as the text (spoken or written; formal or informal).

These three elements above are what make up Register, which is the specialized way by which people in a given social community communicate among themselves using a particular language. SFL is quite relevant in the study of effective communication because every speaker is different from another, and one statement will usually give different meanings in different contexts because different users of English use it in different ways. Although English has become a global language, English words have undergone various changes in meaning because of the cultural and geographical disparity of its users. When a Cameroonian user of English says “pear” or “plum”, for example, the object that an American or English user of English has in mind is completely different from what he means. Also, given that one Standard English word itself has various meanings, the context of the use of the word even within Standard English speakers will determine which of those different meanings is being referred to within a communication act.

It is evident that people do not always communicate using words. Words are usually spoken or read accompanied by some semiotic symbols such as body movement and gestures. Even when we read a text, we sometimes exhibit sign language to accompany that act. All these aspects of communication are at the epicenter of SFL because they add or can modify the meaning of the words we use either in speech or in written text, thus impacting their contextual meaning. SFL can be applied in various fields, given that it is concerned with attempting to comprehend the manner in which language is utilized for various reasons and in various contexts to serve effective communicative purposes, such as in healthcare. David Banks (2024) indicates that SFL is based on texts that can be either spoken or written, and that the theory has already been applied in the clinical field to study the language of autistic patients. Given that SFL is not limited to verbal or written expression, the theory has also been applied to other fields such as visual arts, music and dance because it incorporates other features of communication such as gestures and kinesics. This wider application of the theory in various fields has greatly contributed to its relevance in today’s society.

A discussion of the Communication Accommodation Theory and the Systemic Functional Linguistics adequately explain how relevant they are in identifying who the expected audience is, in the written medical discourse under study. There exists gaps or differences between the literature discussed above and the central concerns of this paper. Fortuine (2000) is basically concerned with the etymology of medical terminology. Although his work is intense in terms of the variety and density of the vocabulary and affixes that are derived from Greek and Latin, the study did not delve into a case study to see how those words are effectively utilized in actual communication. This is the gap that this article intends to fill.

Furthermore, Chia (2001) studied the barriers of communication between patients and clinicians. His work does not actually identify the specific linguistic elements that contribute to the communication breakdown between patients and clinicians. This paper analyses the purely linguistic components that may lead to miscommunication between clinicians and patients.

Lerner et al. (2000) carried out research to find out if patients in the emergency department in some hospitals in the United States understood the medical words used by clinicians. Our study is not restricted to a specific department in the hospital. Also, while Lerner’s (2000) research is based in the United States, this paper focuses on the Buea municipality.

Statement of the Problem

Effective communication is a fundamental component of quality healthcare delivery, particularly within the framework of patient-centred care, which emphasizes patients’ active involvement in decisions concerning their health. Medical ethics further reinforces this principle by requiring clinicians to provide patients with clear, complete, and comprehensible information about their medical conditions and treatment plans. Despite these expectations, there is growing concern that the written discourse used by clinicians in medical reports and records does not adequately meet the informational needs of patients.

In practice, medical reports often contain highly technical vocabulary, complex syntactic structures, and implicit assumptions of specialized knowledge that are more accessible to healthcare professionals than to patients. This raises a critical question regarding the intended audience of such written communication. While medical documentation is essential for ensuring continuity of care among healthcare providers, patients also rely on these reports to understand their diagnoses, treatment procedures, and medication instructions. The lack of clarity in determining whether these texts are designed primarily for clinicians or for patients creates a significant communication gap.

This ambiguity has important implications for healthcare outcomes. When patients are unable to comprehend the information contained in their medical reports, their ability to make informed decisions, adhere to treatment regimens, and actively participate in their care is compromised. In contexts such as the Buea Municipality, where factors like limited physician–patient interaction time and varying levels of patient literacy may already constrain effective communication, the complexity of written medical discourse further exacerbates the problem.

Although previous studies have examined doctor–patient communication and identified barriers such as language differences, low health literacy, and institutional constraints, limited attention has been given to the pragmatic and linguistic features of clinicians' written discourse, particularly in African contexts. There is therefore a need for a systematic analysis of how language is used in medical reports, who it is intended for, and how accessible it is to patients. This study addresses this gap by investigating the lexical and syntactic characteristics of clinicians' written discourse in the Buea Municipality, with the aim of determining its intended audience and evaluating its implications for effective healthcare communication.

METHODOLOGY

We have established three research questions for this study: The first objective seeks to identify and analyse the lexical and syntactic structures of written communication in patients' medical reports, while the second seeks to find out who clinicians write to in patients' medical reports. The third objective seeks to find out how accessible to patients the information in their medical reports is.

Each of these objectives measures different aspects of the lexical and syntactic aspects of medical discourse in our quest to determine who the possible target audience may be. This paper employs the purely qualitative approach because it concentrates on describing the purely linguistic components of clinicians' written communication. The justification of the descriptive thematic approach of this paper is based on the fact that the corpus of data collected shall be analysed through the textual analysis method: the corpus analytical approach.

While the first phase of the qualitative approach helped in the textual analysis through the corpus of data that was collected from patients' medical reports, the second phase analysed the data collected through two sets of interviews. Data got from patients' medical reports thus helped us to analyse the lexico-syntactic structures of medical discourse, corresponding to the needs of research objective (1). The interview on the other hand helped us collect data that seeks to identify why medical staff use such lexical and syntactic structures as indicated in objective (2) and if such structures are accessible to patients as indicated in objective (3). Therefore, we used the descriptive approach throughout this study, since our focus is on thematically describing the lexical and syntactic aspects of medical discourse.

We used two basic methods to collect data for this study. We used patients' medical reports in order to collect data to investigate the linguistic elements used by medical service providers (by examining the lexical and syntactic patterns of their written communication) in order to determine their target audience. This was done through the purposeful sampling technique, whereby the researcher collected medical reports from patients after soliciting their permission. These were directly photocopied anonymously (leaving out personal details of the patients), or snapped using an android phone before being photocopied. We obtained 50 medical reports from this method, which will be further used to analyze the lexical and syntactic characteristics in order to achieve our objective of determining to whom such communication is destined.

We also used an interview through questionnaire in order to acquire additional data related to the expected target audience of clinicians' written report on patients' medical records. This questionnaire was intended to measure the effectiveness of the written reports, from the writers' (clinicians') point of view. We interviewed 75 medical staff, ranging from nurses, laboratory technicians, surgeons, pharmacists and general practitioners. These will further be analyzed against the backdrop of the already acquired data on the lexical and syntactic patters of their written communication. A second set of questionnaires was designed that sought to find out if patients understood information written in their medical reports. 85 patients effectively filled in the questionnaire to provide the required data.

In terms of sampling, we got 50 medical reports from patients and interviewed 75 clinicians and 85 patients. These were got from both governments, denominational and lay private health facilities within the Buea Municipality: the Buea Regional Hospital, Mt. Mary

Catholic Hospital, Solidarity Clinic and St, Lukes Hospital. The following sample was chosen in order to spread our data sources from a variety of different users of the available health facilities within our study area, as summarized on the table below:

Table 1: Healthcare Institution

Source of Data	Healthcare Institution				Total
	Buea Regional Hospital	Solidarity Clinic	Mount Mary Catholic Hospital	St Lukes Hospital	
Medical Reports	30	10	5	5	50
Interview of Medical Staff	30	15	15	15	75
Interview of patients	40	15	15	15	85

These health facilities were deemed representative of the study area because of the large number of patients who seek the services offered there. They vary in terms of cost, location and the quality of services they offer to the various social classes of people located within the Buea Municipality.

This paper uses the Corpus Analysis technique. Data was collected from patients' medical reports. The lexical and syntactic structures that characterize clinicians' written discourse were identified, classified under specific lexical categories and analysed. This data (lexical and syntactic structures) was also described in order to get their semantic orientation with the help of seasoned medical personnel who explained them to the researcher. We also got data from interview of patients and clinicians. Such data was described thematically through descriptive analysis.

RESULTS

The data for this paper was collected from two basic sources: patients' medical reports and questionnaire. One set of question was designed for clinicians and another for patients.

A- Data Elicited from Patients' Medical Reports

(i) Clipped Forms

The following clipped forms are used in the written expressions of medical staff in the Buea Municipality. We present them with their corresponding full forms as follows:

Table 2: Clipped Forms

Clipped Form	Full form
Creat	Creatinine
Alb	Albumen
Para	Paracetamol
Sug	Sugar
Lab	Laboratory
Abd	Abdomen
Clox	Cloxacillin

Source: Researcher

(ii) Use of Initialisms

The following initialisms were identified from the data collected for our study: Mp, FBC, MP, CRP, FBS,APTT, IUD, PSA, WBC, ROV, BP, ENT, TR, TPHA, RCT, CXR, COPD, STD, UTI

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(iii) Acronyms

We identified the following acronyms in our data: SOP, NAD and ROV

(iv) Medical Codes

The following medical codes were identified in our data:

Table 3: Medical Codes

Code	Meaning
2x2x3days	Two (of the type of medication) to be taken twice a day for three days
X2/day	Twice a day
I – I – I	One in the morning, one in the afternoon, one in the evening
I – 0 – I	One in the morning, none in the afternoon, one in the evening
T^{o}	Temperature
CXR	Chest x-ray
1 – 1 – 1 – dlyx1mth	one (of the type of medication to be taken) in the morning, one in the afternoon, one in the evening every day for one month
^{o}C	Degrees centigrade

Source: Researcher

(v) Words denoting empathy

A specific instance of the use of words denoting empathy was found in the data collected.

- **Please** to avoid any intimacy

(vi) Semiotics

The following signs are used in the written expressions of clinicians:

Table 4: Signs and Meaning

Sign	Meaning
↓	Decreasing
+ve	Positive
-ve	Negative
>	greater than
<	less than
≈	Approximately

Source: Researcher

(vii) Eponyms

The following eponyms were identified in the course of the investigation:
WIDAL, Fallopian tube, Parkinsonism

(viii) Use of Chemical Symbols

A few chemical symbols were identified in our study, as illustrated below:
Ca = Calcium; Mg = Magnessium; Hg = Mercury

(ix) Blending

Our data indicates the use of the following blended forms: urianalysis, osteoarthritis, paraplegia, electrophoresis, arthemeter, gastroenterologist and fundoscopy.

(xi) Reported Speech

- Patient says she's had a similar episode about 2 months ago and lesions subsided spontaneously
- Patient discussed with pathologist.
- Patient seen with involuntary movement of the limbs.
- It was well until 3 days ago when she had difficulty passing stool despite the urge
- Patient and carer counselled on disease
- Patient discussed with pathologist

(xii) Imperative Sentences

- See dental room
- Continue the treatment
- Apply cream on arm
- Apply neomycine
- Increase modopar to 2 tabs
- Apply neomycentractricin
- See a paediatrician
- Insert ovule
- Use appendicitis kit
- No sex during treatment
- No alcohol during treatment

(xiii) Infinitive Phrases/Infinitival Clauses

- To discuss with pathologist
- To apply morning and evening
- To repeat the chlamydia test after this treatment
- To do skia
- To review with Dr. Nora

(xiv) - Impersonal Sentence

- Has urethral discharge
- Was not taking any drugs around the time symptoms started

(xv) Predicates with Implied Subject

- is improving
- Was not taking any drugs around the time symptoms started
- Has had this problem repeatedly and now more especially on the right flank.
- Has urethral discharge
- Has IUD for seven years now

(xvi) Euphemisms

- Please to avoid any intimacy for about 3 weeks
- External private part
- Stop at the end of the period
- External private parts

The following results were obtained from interviewing clinicians:

- A very significant number of the medical staff assert that patients do not understand the lexical and syntactic structures used by physicians in their medical reports.
- Medical staff write the way they do because that is the language of medicine. Scientific terms and expressions usually have fixed meaning.
- It is not compulsory for medical doctors to use special and invisible calligraphy in medical reports, although young practitioners and quacks use it for reasons of make-belief.
- The lexical and syntactic structures used in patients' medical reports are universally acceptable and can be interpreted by any medical worker world-wide.
- Those forms of medical structures are actually taught in medical schools, so it is a reflex for clinicians to use them since it is their profession.
- No special calligraphy is taught in medical schools.
- Drug prescription, ideally, is to be done by pharmacists but medical doctors write drug prescription in patients' medical reports for fear of mistake by pharmacists.
- Medics use such structures to save time by providing maximum care to patients using minimum time.

  Clinicians use the following alternative to communicate with patients in specific situations:
- Clinicians explain verbally, some of the medical details to patients.

- Body language is also used, especially with patients that have lost their hearing faculties.
- Although some medical words and phrases do not have exact synonyms, the clinician can merely explain these to the patients.

The following results were obtained from interviewing patients:

- Patients can understand a very insignificant quantity of the information in their medical reports.
- Patients do not have adequate information about their health situations.
- Patients are always curious to know what is written in their medical reports. They always check this out when they get home.
- Doctors give patients very little information on drug use.
- Doctors do not give patients information about the adverse effects of the drugs they take.
- At the delivery room, doctors give fairly sufficient information to expectant women.
- Physicians use harsh language while speaking to them.
- Patients do not know exactly which illness they are being tested for when asked to do laboratory tests.
- Patients sometimes feel intimidated by physician's written language and feel inferior to ask what they (physicians) mean.
- Patients sometimes take the wrong dose of drugs due to miscommunication between them and clinicians.

Analysis and Interpretation

We used the qualitative data analysis method in this paper. The data was got through two methods: medical reports and questionnaires. We used two different techniques to analyse each of these data sources – the Corpus Analysis technique to analyse data got from the medical reports, and the thematic description to analyse data collected through the two sets of questionnaires.

Corpus analysis involves extracting from a text, specific information through textual analysis. It is a technique of analyzing corpora so as to identify patterns or relationships between given linguistic elements. We used corpus analysis method in this paper so as to identify and describe the lexical and syntactic characteristics of written medical information as a measure to determine the target audience of such written information. We identified specific lexical and syntactic patterns from the data collected, and the various items identified under each pattern were listed under such headings as Abbreviations, Medical Codes, Eponymy, Imperative Mood and Predicates with Implied Third Person Reference. These fell under three broad categories: lexical structure, syntactic structure and usage patterns.

Thematic Descriptions are also used to analyse the results for this paper. We collected data from two sets of questionnaire – one for clinicians and another for patients. These sought to identify the target audience of written medical communication, and also determine how effective such communications are in sending the intended message to the expected audience. The thematic descriptions relate to reasons for which clinicians write the way they do, who their target audience is, and the possible impact of their written communication on healthcare delivery. This aspect takes into cognizance not only the lexical and syntactic structures as identified above, but also the graphological consideration of the written expression of clinicians, which also affects meaning.

Support for Research Question

With regard to Research Question I, which sought to identify and analyse the lexical and syntactic structures of clinicians' written discourse, the findings indicate that such structures are characterized by the use of clipped forms, medical codes, initialisms, acronyms, eponyms, semiotics, euphemisms, blending, reported speech, imperative sentences, predicates with implied subjects and infinitive phrases. With regard to Research Question II which seeks to identify the intended audience in clinicians' written discourse, our findings indicate that such discourse is intended for the effective communication among medical staff as well as between clinicians and patients. With regards to Research Question III which sought to identify how accessible such linguistic structures are to patients, our findings reveal that patients find it extremely difficult to understand information in their medical booklets.

DISCUSSION

We shall interpret our findings under two major headings: information destined for medical staff and information destined for patients. The expected audience, or reader as applicable to this paper, is determined by the linguistic evidence attached to the data we have collected.

Information Directed to Other Clinicians

When people who belong to the same profession (such as lawyers, priests, engineers, pilots and footballers) communicate among themselves, they usually use specialized vocabulary and expressions in the place of the common ones which they would normally not use when communicating with people who do not belong to it. Every profession has a register by which it could be identified through its form of communication. Such register is sometimes difficult to be understood by persons who do not belong to that profession. Such instances abound in our study.

Use of Specialised Vocabulary and Expressions

Medical register is exhibited through the following specialized vocabulary.

-Eponyms: These refer to names of persons given to the medical inventions they made, as follows:

Table 5: *Eponyms*

Eponym	Meaning	Origin
WIDAL	WIDAL Test (a test to identify typhoid fever)	George Ferdinand Widal
Fallopian tube	Pair of tubes along which eggs travel from the ovaries to the uterus	Gabriele Falloppio
Parkinsonism	Neurological disorder that affects movement, mental health and causes painful muscles and dementia	James Parkinson

Source: Researcher

-Noun phrases such as *hormonal profile, distended neck, palpable cervical lymph nodes.*
Eponyms help to reduce complex description of diseases, instruments and theories to a single word or phrase. They help in making communication faster between or among healthcare staff. Noun phrases, on the other hand, help in making short and concise descriptions thereby saving communication time.

B) – Abbreviations

When clinicians communicate among themselves, they use a lot of abbreviations such as initialisms and acronyms. Medical professionals have been trained in using these forms and they can easily understand each other through them. Such abbreviations include:

Table 6: Abbreviation

Abbreviation	Type	Meaning
NAD	Acronym	No Acute Distress
SOP	Acronym	Standard Operating System
ROV	Acronym	Right Occipital Vertex
FBC	Initialism	Full Blood Count
MP	Initialism	Malaria Parasite
CRP	Initialism	C-Reactive Protein
FBS	Initialism	Fasting Blood Sugar
APTT	Initialism	Activated Partial Tromboplastine Time
IUD	Initialism	Intrauterine Device
PSA	Initialism	Prostate Specific Antigene
WBC	Initialism	White Blood Cell
ENT	Initialism	Ear, Nose and Throat (specialist)
TR	Initialism	Tricuspid Regurgitation (a type of heart valve disease)
TPHA	Initialism	Treponema Pallidum Hemagglutination Assay (a blood test to diagnose syphyllis)
RCT	Initialism	Root Canal Treatment (of the tooth)
CXR	Initia;lism	Chest x-ray
COPD	Initialism	Chronic Obstructive Pulmonary Disease
STD	Initialism	Sexually Transmissible Diseases

Source: Researcher

These abbreviations are varied in the sense that some express names of ailments while others express treatment procedures, types of laboratory experiments, medical equipment and health conditions. It is difficult to find one single word that will explain these terms to a non-specialist, and the patient can only understand them only when they are explained.

Chemical Symbols, Codes and Clipped Forms

Chemical symbols can only be understood by persons who have studied Chemistry, which is the backbone of medicine. It is obvious that writing these symbols, instead of their full meaning, can only be directed to other clinicians. The following chemical symbols were found in our data:

Table 7: Chemical Symbol and Full Name

Chemical Symbol	Full Name
Ca	Calcium
Mg	Magnesium
Hg	Mercury

Source: Researcher

The use of chemical symbols helps healthcare professionals to save time, as much as does medical codes, especially when we consider the low physician density within our study area. This is further exemplified as follows:

Table 8: Code and Meaning

Code	Meaning
2x2x3days	Two (of the type of medication) to be taken twice a day for three days
X2/day	Twice a day
I – I – I	One in the morning, one in the afternoon, one in the evening
I – 0 – I	One in the morning, none in the afternoon, one in the evening
T^o	Temperature
1 – 1 – 1 – dlyx1mth	one (of the type of medication to be taken) in the morning, one in the afternoon, one in the evening every day for one month
^oC	Degrees centigrade

Source: Researcher

It is very difficult for those who have not read science to interpret these symbols and codes. These codes relate to drug prescription and use, and are usually directed to the pharmacist who in turn will need to decode the information to the patient. The same phenomenon applies to clipped forms as illustrated below.

Table 9: Clipped Form and Full form

Clipped Form	Full form
Creat	Creatinine
Alb	Albumen
Para	Paracetamol
Inj	Injection
Clox	Cloxacillin

Source: Researcher

It is evident that these words that are found in patients' medical report are directed to other clinicians because their clipped forms cannot easily be understood by ordinary patients. These are all scientific words, and writing their clipped forms further complicates their meaning to an ordinary patient.

Predicates with Implied Third Person References

Third person reference is the form used when we are referring to someone or giving information about them without speaking to them directly. This means that although the report is being made in the patients' medical booklet, the information is not meant to them but to other medical personnel. Some instances of this style of communication exist in the data collected, as illustrated below:

-Was not taking any drugs around the time symptoms started
- Is improving
- Has urethral discharge
- Has IUD for seven years now

There is an implied third person personal pronoun subject "He/She" in these examples above because the verbs take the third person pronoun form. If the clinician were addressing the patient directly, the verbs would have respected the second person singular rule "You" form. In that case:
Was not taking any drugs around the time symptoms started would have been written as
Were not taking any drugs around the time symptoms started. Also, *Is not improving* would have been written as *Are not improving;* thus bearing an implied second person singular "You" pronoun.

Elliptical Sentences

Elliptical sentences serve for brevity and conciseness in medical communication, by eliminating certain words, phrases or clauses which would have otherwise created unnecessary repetition. The context of use would still make meaning clear through such elimination. This is done by the omission of certain words or phrases. There are a number of nominal ellipsis in our data as illustrated below:

- Has IUD for 7yrs now
- Walks well only after some few minutes
- Has urethral discharge

The sentences above lack any explicit noun or pronoun subjects but are understood contextually that they are directed to other healthcare staff due to the implied third person pronoun subject, which agrees with the verbs that are also in the third person singular form (Has, Walks).

Compounding and Blending with Greek and Latin Words

A good number of medical words are formed by fusing together various words, some originating from Greek and others from Latin, as illustrated below:

Table 10: Word, Composite Element and Meaning

Word	Composite Element	Meaning
Urinalysis	urine+analysis	Test of urine to check urinary tract infection
Osteoarthritis	Osteo(Greek)+arthr (Greek)+ itis (Latin)	Inflammation at the level of the joint of the bone
Paraplegia	para+plegia	Paralysis of the legs and trunk
Electrophoresis	electro(Greek)+phoresis	Process of separating charged particles or molecules using an electric field
Arthemeter	Arth(joint) +meter (measure)	Device used to measure joint movement
gastroenterologist	Gastro+enter+ologist	Specialist in intestine and stomach disorders
Funduscopy	Fundus+scopy	Examination of the lower part of the eye

Source: Researcher

Urinalysis is a compound, made up of *urine* and *analysis*. Etymologically, the word *urine* is derived from the Latin word *urina,* while *analysis* is a purely English word. *Electrophoresis* is derived from the Greek *electro* meaning *amber* which when translated into English means *electric*. *Electro* has thus become a prefix in many other English words today. If we also consider the word paraplegia, for example, we realise that it can be broken down into the following parts. *Para* is derived from Greek. It is a prefix which means *beside, near, alongside. Plegia* is another Greek word, here serving as the base form, which means *paralysis, blow* or *stroke.* The derivative *paraplegia* means a stroke or inability to voluntarily move the lower parts of the body such as the legs due to injury or disease of the spinal cord. Similarly, gastroenterologist is made up of affixes derived from Greek and Latin as illustrated below:

- *Gastro* is a Greek word (*gaster*) meaning belly, here serving as prefix, and meaning *stomach* or *digestive system*
- *enter* is a Greek word (*enteron*) meaning intestine, here serving as the base form, meaning *intestine* or *bowel*
- *ologist* is another Greek word (*logos*) meaning *the science of*, here used as a suffix and referring to a *specialist.*

Therefore, gastroenterologist is a medical specialist who is in charge of stomach, intestine or digestive disorders. Similarly, thyroid (a gland), is derived from the Greek word *thyreos* referring to the small butterfly-shaped gland in the front of the neck. Funduscopy is made up of two basic words: *fundus* (a Latin word meaning *bottom* or *base*) and *scopium,* a derivative from the Greek *skopein* meaning *to examine* or *to see*). It is interesting to notice the suffix, which shows that such a word is an amalgam of one Latin and one Greek word to form a unique English word. Funduscopy therefore means examination of the bottom part of the eye. Similarly, the word *hyperpigmented* has three morphological parts, made up of Greek, Latin and English, as illustrated below:

Hyper – Greek prefix meaning *above* or *over* or *in excess*

Pigment – Latin root derived from *pigmentum*, meaning *colour*
ed – English participial suffix and playing an adjectival function

Therefore, *hyperpigmented* is an adjective that refers to an area of the skin that has too many colours, literally speaking. These results confirm the observation of Fortuine (2000) who had indicated that during the period of humanism and the Renaissance, many Latin and Greek prefixes and suffixes came to use in the creation of new medical vocabulary in English. There is the possibility that the fusion of Latin, Greek and English affixes in one word would end up in semantic complications because each of these units carries with it an element that is semantically necessary in understanding the word as a whole. This makes the meaning of such words obscured and extremely difficult to be understood by ordinary patients, but appropriate for use when communicating among healthcare service personnel.

Reported Speech

Reported speech is the form used when we are telling someone what another person has said. We had a single occasion when such a structure is used, as illustrated below:

> *Patient says she's had a similar episode about 2 months ago and lesions subsided spontaneously.*

This reported statement explicitly indicates that the clinician was reporting what the patient said to another clinician on the treatment chain.

Direct Reference, not Address, to patient

There are a number of instances where the patient is not addressed, but merely referred to. In such cases, it

is evident that the clinician was addressing themselves to another clinician. Such cases include the following:

Patient and carer counselled on disease
Patient discussed with pathologist
Patient seen with involuntary movement of the limbs

Given that the patient is merely referred to, and not addressed in the statements above, indicate that this communication is between one clinician and another within the treatment chain.

Information Directed to Patients

Patient-centred approach to healthcare puts the patient at the centre of all communication. There are a number of instances and indicators that prove that clinicians address themselves to patients in their medical reports.

Deictic Implication of the Imperative Mood

The imperative mood is a verb form that gives commands, instructions or advice, typically with an implied second person (you) subject. This is what Li (2023) refers to as minor sub-types of imperative mood such as the prohibitive, the permissive and the impersonal imperative. In order to give clear, unambiguous and direct instructions to patients, healthcare workers use the imperative forms in their written expressions. These are instructions directed personally to patients, and are of two categories: instructions on what to do and instructions on what not to do, expressed respectively in positive imperatives and negative imperatives as exemplified in the following structures:

- *Apply cream on arm* – Instruction (What to do)
- *Increase Modopar to 2 tabs* – Instruction (What to do)
- *See a paediatrician* – Instruction (What to do)
- *Insert ovule* – Instruction (What to do)
- *Apply neomycentractricin* – Instruction (What to do)
- *Apply cream on labia* – Instruction (What to do)
- *No sex during treatment* – Instruction, negative imperative (What not to do)
- *No alcohol during treatment* – Instruction, negative imperative (What not to do)

From a deictic point of view, the *referent* of "apply cream on arm" for example, is the patient who is standing or sitting right in front of the clinician at the time he/she is writing the medical report. Specifically from a Person Deixis perspective, the instruction is directed towards the person whose arm is being referred to, implying a sense of "You" which constitutes the implied subject of the sentence, and its corresponding implied object modifier by a possessive determiner "*Your* arm." This conviction is accentuated by the fact that the sentence has an implied subject which is the patient. This argument also holds true for the rest of the expressions in this category. This is one of the instances where we find clinicians addressing patients directly through their written expression.

The medical instructions above play various functions such as directives on the use of medication, caution to take in the course of the treatment and direction to certain facilities or services within the hospital (*See a paediatrician)*.

Euphemism

Sometimes clinicians use a subtle manner to instruct and advise patients. These are "soft" or polite words used in order to assuage the psychological distress and even pain that patients are going through, as illustrated in:

Please to avoid any intimacy for about 3 weeks

The word "please" is a direct address that is meant to soothe the patient psychologically. From a pragmatic perspective, "Please" is a reference to the person we are communicating with, and in this case, the patient is being addressed by the healthcare provider.

Infinitival Clauses

Healthcare providers sometimes address their patients through infinitive clauses as exemplified below:

To discuss with pathologist
To do skia
To review with Dr Nora
To apply morning and evening

From a pragmatic perspective, the statements above are directly addressed to the patient. The practical treatment procedure in a hospital requires the patient moving from one service along the treatment chain to another. *To discuss with pathologist* for example, is a direct instruction to the patient to meet the pathologist, another agent in the treatment chain. *To review with Dr Nora* also entails that the patient needs also the services of Dr. Nora, who is part of the medical staff in that health facility. Also, *To do skia* is an instruction to the patient to have that laboratory experiment done (to determine the refractive error of the eye). Similarly, *To apply morning and evening* is a medical prescription to the patient related to the frequency of use of medication.

Locative Directives

Sometimes the healthcare provider indicates to the patient the location of the next service that is required for their treatment, as illustrated in:

See dental room

This directive is a direct address to the patient who then knows where and for which service they need to go.

Discussion of Findings Based on Questionnaire for Clinicians

The findings from the questionnaire administered to clinicians to find out the reasons for the style they use in patients' medical report reveal that healthcare personnel write the way they do because that is the language of medicine. Scientific terms and expressions usually have fixed meaning, which can be understood by other medical staff everywhere in the world. The lexical and syntactic structures used in patients' medical reports are universally acceptable and can be interpreted by any medical staff world-wide.

Secondly, medics use such structures to save time by providing maximum care to patients using minimum time. Since these forms are actually taught in medical training schools, it is just natural for clinicians to use them as a reflex in their various media of communication. This is seen through the use of such forms as chemical symbols and medical codes. Our results also indicate that drug prescription, in particular, ideally, is to be done by pharmacists but medical doctors write such prescription in patients' medical reports for fear of mistake or failure by pharmacists to do so.

In terms of calligraphy, it is not compulsory for medical doctors to use special and invisible calligraphy in medical reports, although young practitioners and quacks use it for reasons of prestige and make-belief. No form of calligraphy is taught in medical schools, and so the term "medical calligraphy" does not exist as a standard expression to describe any kind of graphological expression. In fact, the calligraphy of some clinicians is as clear, legible and readable as any other can be. The calligraphy used by most healthcare workers is not readable because many of the letters are not written in standard graphology. This makes it very difficult for non-clinicians to read it. Although some medical words and phrases do not have exact synonyms, the clinician can merely explain these to the patients. The verbal and body language forms have been expressed in the following instances:

During the administration of medication at the antenatal unit, the nurse would open her mouth, look straight into the child's eyes and the child will also imitate her by opening her mouth - then the nurse will insert the drug into the child's mouth. The same gesture is done for patients who have lost their hearing faculties especially those at the I.C.U. (Intensive Care Unit). The medical staff would stretch out their arm and then fold in her fingers. The patient would do same, making visible the vein protrusion and then the nurse would pick the vein with a syringe to extract blood specimen from the patient. These forms of body language, in addition to the verbal forms, constitute alternative methods of communication between clinicians and patients.

Discussion of Findings Based on Questionnaire for Patients

Given the complexity of the lexical and syntactic structures identified above, it is difficult for patients to access the information on their medical reports. This in part is due to the fact that a significant percentage of that information is not addressed to the patient, and so they have very little information about their health situation, thus making them not fully active participants in their treatment process and decision making.

Doctors do not always give patients information about the adverse effects of the drugs they take. Patients sometimes take the wrong dose of drugs due to miscommunication between them and clinicians. At other times, when they take a drug and start feeling well, they do not continue taking it till the end because they lack the knowledge that complete healing takes place only after they have taken the complete prescription of the drug.

There is an abuse of medical ethics whereby patients do not know exactly which illness they are being tested for when asked to do laboratory tests. A patient may be tested for several diseases and the doctor may inform them only about one, sometimes none, verbally, although all the laboratory tests are well written down in the medical reports. Some patients undertake surgery without knowing details of their ailment and even its possible causes.

Patients sometimes feel intimidated by physician's written language and feel inferior to ask what they (physicians) mean by what they have written in their medical reports. Some patients leave the consultation room without being satisfied that the doctor has communicated effectively with them. This creates a huge communication gap between clinicians and patients, a situation that is made worse by the fact that physicians sometimes use harsh language while speaking to patients. However, in the delivery room, doctors give fairly sufficient information to expectant women, and this service seems to be an exception to the others where clinicians do not communicate effectively with patients.

Our results indicate that the lexical and syntactic structures are laden with scientific words and expressions that are easily comprehensible to clinicians but not the ordinary patient. They also indicate that while clinicians have made genuine efforts to communicate effectively among themselves, very little effort has been made to ensure that patients also understand the written communication in their medical reports, although they do so in the alternative (verbal) communication.

Comparison with Existing Literature

This paper has expounded on the linguistic components that characterise medical discourse, and has actually found out that clinicians' written discourse is intended for both the patients and other clinicians. Our findings are at variance with those of Chia (2001) whose work is focused on verbal communication between clinicians and patients. Chia's work accurately found out that there exist

a huge communication gap between clinicians and patients but did not identify the linguistic components that cause such a gap. His work focused on verbal communication between theseparties, while this article focuses on the written communication. This article also varies from that of Lerner et al. (2000) whose investigation was limited only to patients in the Emergency department. The linguistic components that we have identified in this study spread through the various departments of healthcare service delivery such as the pre-consultation, the consultation proper, maternity service, in-ward patients' service, emergency unit and pediatrics service. Finally, this paper complements the findings of Fortuine (2000). The plethora of words and affixes (especially Greek and Latin) that Fortuine identified to have emerged in healthcare language throughout the evolution of medical science are actually seen being used in context in our findings.

Implications of the Study

The findings of this study carry significant implications for healthcare practice, medical education, and policy, particularly within contexts where patient-centred care is increasingly emphasized. First, the study highlights the urgent need for clinicians to adopt more audience-sensitive communication strategies in their written discourse. Given that medical reports serve not only as tools for professional communication but also as sources of information for patients, there is a clear necessity to simplify language, reduce excessive technicality, and ensure that key information is presented in a manner that is accessible to non-specialists. This shift would enhance patients' understanding of their medical conditions and treatment plans, thereby promoting informed decision-making and improving adherence to prescribed therapies.

Secondly, the study underscores the importance of integrating communication training into the education and professional development of healthcare providers. Medical and nursing curricula should place greater emphasis on effective written and verbal communication, particularly within the framework of English for Specific Purposes (ESP). Training programs should equip clinicians with the skills to adapt their language to different audiences without compromising the accuracy and precision required in medical documentation.

In addition, the findings have implications for healthcare institutions and policy makers. Hospitals and health authorities may need to develop guidelines or standardized formats for medical reports that clearly distinguish between sections intended for professional use and those designed for patient comprehension. Incorporating plain language summaries or patient-friendly explanations into medical records could significantly bridge the communication gap identified in this study.

Furthermore, the study contributes to the broader field of medical discourse analysis by demonstrating the relevance of linguistic and pragmatic approaches in understanding healthcare communication. It reinforces the idea that language is not merely a neutral medium of information transfer but a critical factor that can influence health outcomes. As such, improving the clarity and accessibility of clinicians' written discourse should be seen as an integral part of enhancing the overall quality of healthcare delivery.

Finally, in the specific context of the Buea Municipality and similar settings, the study draws attention to the compounded challenges posed by limited healthcare resources, varying literacy levels, and multilingual environments. Addressing these challenges through improved communication practices can foster greater trust between patients and healthcare providers, ultimately leading to more effective and equitable healthcare services.

CONCLUSION

The findings of this study reveal several important issues regarding communication in medical settings. First, patients' medical reports are not consistently tailored to a single audience; while some sections are directed at patients, others are written for healthcare professionals, creating a mismatch in accessibility and comprehension. As a result, many patients are unable to understand a substantial portion of the information contained in their reports. This difficulty largely stems from the use of complex lexical choices and syntactic structures that exceed the average patient's level of understanding. Such practices run counter to established principles of medical ethics, which require clinicians to provide patients with clear, complete, and comprehensible information about their health.

The study further highlights that inadequate and ineffective communication between clinicians and patients has negative implications for treatment outcomes and proper drug use. When patients do not fully grasp medical instructions or the nature of their conditions, adherence to treatment is compromised. This communication gap is exacerbated by low physician density, which limits the time and attention clinicians can devote to each patient, thereby increasing the likelihood of misunderstandings. By examining the linguistic features of clinical discourse, this paper contributes to the field of medical discourse analysis by demonstrating how language itself can act as a barrier to effective healthcare delivery. At the same time, it underscores the idea that communication is not merely a supplementary aspect of medical care but can serve a therapeutic function in its own right, enhancing patient understanding, trust, and overall health outcomes.

However, this study is not without limitations. Future researchers may build on these findings by

adopting a quantitative approach to assess the effectiveness of patient doctor communication more systematically. Additionally, further studies could explore the paralinguistic features of medical discourse, particularly within the Buea municipality, to provide a more comprehensive understanding of how both verbal and non-verbal elements influence communication in healthcare contexts.

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